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ABSTRACT

The Substance Education Program of the Iowa Department of Education began a series of tri-annual studies of youth substance behaviors, attitudes, and knowledge in the fall of 1975. The youth studies have continued with data collections in 1978, 1982, 1984, and 1987. A survey administered in 1987 to Iowa students in grades 6, 8, 10, and 12 focused on substance use, parent modeling behaviors, parent normative standards, peer modeling behaviors, school normative standards, perceived school influence, and intervening variables related to adolescent preferences and norms. The findings of the 1987-88 Iowa Study of Alcohol and Drug Attitudes and Behaviors among Youth will be presented in three reports focusing on: (1) normative data for 1987 and relevant comparisons with previous studies; (2) individual district reports of student responses to selected survey items; and (3) normative data packets for the four size categories of districts. This report presents normative data for the 1987 survey and comparisons with prior studies. An introduction is followed by a description of study procedures and sections on findings for self-reported substance use and norms, external influences, and personal variables. A summary and recommendations section presents findings relevant to four research questions dealing with the present status of substance use, attitudes, and knowledge; important trends in these areas; the major influences in a youth's decision to use substances; and actions suggested by the findings for school persons. Sixty-four data tables are included. (NB)

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1987-88 Iowa Study of Alcohol and Drug Attitudes and Behaviors Among Youth

Normative and Trend Data

Prepared by
Substance Education Program
Instruction and Curriculum Division
June 1989

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PREFACE

The Substance Education Program of the Iowa Department of Education began a series of tri-annual studies of youth substance behaviors, attitudes and knowledge in the fall of 1975. The youth studies have continued with data collections in 1978, 1981, 1984 and 1987.

The findings of previous studies were disseminated to Iowa educators, health planners and agencies that serve youth. These reports were useful in planning and implementing substance education, prevention and intervention programs in Iowa. The report of the 1987 findings should prove to be as useful.

The findings of the 1987-88 Iowa Study of Alcohol and Drug Attitudes and Behaviors Among Youth will be presented in three separate reports:

- Normative data for 1987 and relevant comparisons with 1975, 1978, 1981, and 1984 findings.
- Individual district reports of student responses to selected survey items.
- Normative data packets for the four size categories of districts.

This report deals with normative data on several items for the 1987 youth survey. Several comparisons with prior studies are also presented.

The reader will appreciate the positive tone of this report. The series of youth surveys indicates some very positive characteristics in a majority of Iowa youth and familes.

Table of Contents

		Page
I.	Introduction	1
II.	Procedures	2
	1. Selection of District Samples	2
	2. Selection of Student Samples	3
	3. Youth Survey Instrument	4
III.	Self-Reported Substance Use and Nonuse	5
	1. Alcohol Use and Nonuse	5
	2. Tobacco Use and Nonuse	15
	3. Marijuana Use and Nonuse	19
	4. Other Drug Use and Nonuse	24
	5. Polysubstance Use and Nonuse	28
	6. Summary of Findings for Substance Use and Nonuse	31
IV.	External Influences on Substance Use and Nonuse Behaviors	32
	1. Parent Influence	36
	2. Peer Influence	39
	3. School Influence	41
	4. Summary of External Influence Findings	43
V.	Personal Variables	44
	1. Overview of Personal Variables	44
	2. Alcohol Behaviors and Personal Variables	50
	3. Marijuana Behaviors and Personal Variables	56
	4. Other Substances and Personal Variables	60
	5. Related Behaviors	63
	6. Summary of Findings for Personal Variables	64

VI. Summary and Recommendations 66

Research Questions 1 and 2: Status and Trends 66

Research Question 3: Influences on Youth Substance Decisions 68

Research Question 4: Recommendation Actions for School Persons and Others 70

Table of Tables

Table 1	School District Samples for 1987	2
Table 2	Student Samples by District Size Categories	3
Table 3	Student Samples by Grade Level	3
Table 4	Students Completing the Survey by Grade Level and Sex	4
Table 5	Age of Onset for Alcohol Use by Grade Levels	6
Table 6	Percentages of Grade Level Samples Reporting Alcohol Use in 1975, 1978, 1981, 1984 and 1987	7
Table 7	Percent Male and Female Reporting Alcohol Use in 1975, 1978, 1981, 1984, and 1987	9
Table 8	Percentages of Student Samples Reporting Alcohol Use by District Size in 1975, 1978, 1981, 1984 and 1987	10
Table 9	Percentages of Grade Level Samples Reporting Alcohol Consumed Per Drinking Occasion in 1987	11
Table 10	Percentages of Student Samples Reporting Alcohol Consumption by District Size in 1987	11
Table 11	Percent Male and Female Reporting Alcohol Consumption Per Occasion in 1987	12
Table 12	Drinks Consumed Per Occasion Among Alcohol User Groups	13
Table 13	Students' Intentions to Use Alcohol at Age 21	13
Table 14	Age of Onset for Tobacco Use	16
Table 15	Percentages of Grade Level Samples Reporting Tobacco Use in 1981, 1984 and 1987	16
Table 16	Percent Male and Female Reporting Tobacco Use	16
Table 17	Percentages of Student Samples Reporting Tobacco Use by District Size in 1981, 1984 and 1987	17
Table 18	Students' Intentions to Use Tobacco at Age 21	17
Table 19	Percentages of Grade Level Samples Reporting "Smokeless Tobacco" Use in 1984 and 1987	18
Table 20	Age of Onset for Marijuana Use by Grade Levels	19
Table 21	Percentages of Grade Level Samples Reporting Marijuana Use in 1975, 1978, 1981, 1984 and 1987	20
Table 22	Percent Male and Female Reporting Marijuana Use in 1975, 1978, 1981, 1984 and 1987	22
Table 23	Percentages of Student Samples Reporting Marijuana Use by District Size in 1975, 1978, 1981, 1984 and 1987	22

Table 24	Students' Intentions to Use Marijuana at Age 21	23
Table 25	Age of Onset for Other Drug Use by Grade Levels	24
Table 26	Percentages of Grade Level Samples Reporting Other Drug Use in 1975, 1978, 1981, 1984 and 1987	25
Table 27	Percent Male and Female Reporting Other Drug Use in 1975, 1978, 1981, 1984 and 1987	26
Table 28	Percentages of Student Samples Reporting Drug Use by District Size in 1975, 1978, 1981, 1984 and 1987	27
Table 29	Polysubstance Use in 1981, 1984 and 1987 by Grade Level	29
Table 30	Polysubstance Use Among Total Samples During 1975, 1978, 1981, 1984 and 1987	29
Table 31	Polysubstance Use within Various Sized School Districts in 1981, 1984 and 1987	30
Table 32	Polysubstance Use by Sex	30
Table 33	Perceived Influences on Substance Nonuse Decisions in 1987	33
Table 34	Most Important Source of Information About Substances	34
Table 35	Perceived Sources of Help for Substance Problem by Grade Level	35
Table 36	Parental Attitudes Toward Alcohol and Marijuana	36
Table 37	Parental Guidelines for Student Substance Use	37
Table 38	Percentages of Total Sample Reporting Parent Use of Tobacco	38
Table 39	Percentages of Total Sample Reporting Parent Use of Alcohol	38
Table 40	Peer Use of Alcohol, Tobacco and Marijuana in 1987	39
Table 41	Peer Norms Regarding Substance Use	40
Table 42	Perceived Impact of School Programs on Substance Behaviors for Total Sample	41
Table 43	Overview of Motives for Not Using Substances	45
Table 44	Overview of Motives for Using Substances	46
Table 45	General Student Attitudes Toward Substances	48
Table 46	Overview of Student Attitudes Toward Substances	48
Table 47	Student Attitudes Toward Instrumental Substance Use	49
Table 48	Substance Knowledge by Grade Level	50
Table 49	Motives for Not Using Alcohol	51
Table 50	Motives for Using Alcohol	52
Table 51	General Student Attitudes Toward Alcohol	53

Table 52	Student Attitudes Toward Specific Alcohol Behaviors	54
Table 53	Student Decisions Regarding Alcohol Use at Friend's Home	55
Table 54	Student Decisions Regarding Alcohol Use in Group Situations	56
Table 55	Motives for Not Using Marijuana	57
Table 56	Motives for Using Marijuana	58
Table 57	Students' General Attitude Toward Marijuana	59
Table 58	Students' Attitudes Toward Marijuana Behavior	59
Table 59	Student Decisions Regarding Marijuna Use in a Group Situation	60
Table 60	Motives for Not Using Other Drugs	61
Table 61	Motives for Using Other Drugs	62
Table 62	Student Attitudes Toward Specific Tobacco Behavior	62
Table 63	Conforming Behaviors Reported by Total 1987 Sample	63
Table 64	Deviant Behaviors Reported by Total 1987 Sample	64

I. Introduction

Substance use continues to present some serious social problems for school persons, law enforcement persons, health professionals and Iowa citizens. Substance use and abuse always presents possible harm to the user's health and the well-being of his or her family. Current data on youth substance behaviors, knowledge and attitudes is important in responsibly addressing these social and health issues.

During the 1970s, a number of prevention programs were introduced in Iowa schools and communities in an attempt to reduce the occurrence and severity of the social and health problems related to substance use. Several significant socioeconomic events have occurred in recent years, such as problems in the farm economy, public sensitivity to drinking and driving issues, and declining enrollments. These prevention efforts and socioeconomic events have very likely affected youth substance behaviors and attitudes.

The 1987-88 Iowa Study of Alcohol and Drug Behaviors and Attitudes Among Youth attempted to answer four questions:

- What is the status of substance use, attitudes and knowledge among youth?
- What are some important trends in youth substance use, attitudes and knowledge?
- Which people seem to be the major influences in a youth's decision to use or not to use substances?
- What actions do the findings of the 1987-88 study suggest for school persons and others?

Several investigators have studied adolescent substance use. Their studies have identified many variables of particular relevance in assessing substance use, attitudes and knowledge among youth. The research designs and findings of three groups of researchers were particularly important to the present study.[1]

These studies suggested that the 1987-88 survey instrument include the following variables:

Dependent Variables:

Use/nonuse of substances.

Independent Variables:

Parent modeling behaviors
Parent normative standards
Peer modeling behaviors
School normative standards
Perceived school influence

Intervening Variables

A. Adolescent preferences
   - decision-making style
   - motives for not using substances
   - motives for using substances
   - intent to use substances as an adult
   - religiousity

B. Adolescent norms
   - attitudes toward substance behaviors
   - general substance attitudes
   - age of onset of substance use
   - conventional (nonsubstance) behaviors
   - deviant behaviors

Survey items were selected to assess those variables.

A pilot test of the 1987-88 youth survey was conducted during April of 1987 in four Iowa school districts and two treatment centers for adolescent substance abusers. The pilot study produced a 101-question survey which was administered statewide in October and November, 1987.

The final version of the youth survey was designed to be answered anonymously by students in grades six, eight, 10 and 12. Almost every student could complete the survey in 50 minutes or less.

[1]Jessor, Richard; Chase, James A.; and Donovan, John E. "Psychosocial Correlates of Marijuana Use and Problem Drinking in a National Sample of Adolescents." *American Journal of Public Health.* Vol. 70, No. 6, June 1980, p. 604.
Biddle, Bruce J.; Bank, Barbara J.; and Martin, Marjorie M. *"Parental and Peer Influence on Adolescents."* Social forces, Vol. 58, June 1980, pp. 1057-1079.
Johnston, Floyd D.; Backman, Jerald G.; and O'Malley, Patrick M. *Highlights from Student Drug Use in America* 1975-1983. Rockville, Maryland: National Institute on Drug Abuse, 1984.

II. Procedures

The 1987-88 study followed many of the same procedures used in the preceding four surveys. In late August, 1987, a letter was sent to the superintendents of 190 school districts. Each superintendent was informed of the purposes of the study and the procedures to be followed locally. The superintendent was given the choice of participating or not participating in the youth survey. Forty-six school districts chose not to participate.

The superintendents' letter asked them to do the following:

- Randomly select students for grade-level samples.
- Schedule times and places for group administration of the survey.
- Send parent consent letters home with students.
- Return completed surveys to the DE by December, 1987.

Completed youth surveys were edited and coded upon receipt at the DE. Data from individual survey forms were key-punched and entered on a computer file. Data analyses were conducted through the use of an SAS program, a computer program for data treatment.

In February, 1988, a data packet was sent to each of the participating districts. The packet contained local data on selected items from the 1987 survey and normative data for districts of similar size.

1. Selection of District Samples

Two sampling procedures were used in the 1987 study. One sampling procedure (trend analysis) involved repeated measures in school districts that were originally selected in 1975. The second procedure (AEA comparisons) added school districts to more adequately represent youth and schools in each of Iowa's 15 area education agencies (AEA's).

A stratified random sample of Iowa public school districts were prepared for the 1975 youth survey. The 1975 sampling design represented four population categories (urban, semiurban, semirural and rural) of Iowa public school districts based on the total school enrollment and the general population density of the school district. The sampling design also accounted for representation of school districts according to four geographical regions and the boundaries of the area education agencies. School districts were selected based on their enrollment, population density, and distribution within the 15 area education agencies.

The 1975 sampling procedure was reviewed with the 1980 U.S. Census data and 1987-88 school enrollment data. The design was found to be appropriate for trend analysis between the five studies of 1975, 1978, 1981, 1984 and 1987.

Table 1 describes the distribution of school district samples and the rate of participation in the 1987 survey.

Table 1
School District Samples for 1987

Categories of Districts	Urban	Semiurban	Semirural	Rural	Total
Total Number of Iowa Districts in Category	8	24	54	347	433
Total Number of Districts in 1987 Study	5	20	34	85	144
Percent of Total Number of Iowa Districts in Categories	63%	83%	63%	24%	33%

2. Selection of Student Samples

The student samples were selected by building and grade level. The superintendent was informed of individual buildings in the district from which student samples were to be selected. School personnel were to randomly select a minimum of 18 students in each of the sixth, eighth, 10th and 12th grades. A small district, therefore, was expected to draw a minimum sample of 72 students. Larger districts with more attendance centers were expected to produce larger student samples.

Table 2 describes the actual and ideal student samples by size categories of schools. Table 3 describes the actual and ideal distribution of student samples by grade level.

Table 2
Student Samples by District Size Categories

	Urban	Semiurban	Semirural	Rural	Total
Actual Sample	2,816 (34%)	2,328 (28%)	2,284 (27%)	925 (11%)	8,343
Ideal Sample	1,842 (25%)	1,400 (19%)	1,326 (18%)	2,800 (38%)	7,368

Table 3
Student Samples by Grade Level

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Actual Sample	2,066 (25%)	2,039 (24%)	2,004 (24%)	2,234 (27%)	8,344
Ideal Sample	1,916 (26%)	1,842 (25%)	1,768 (24%)	1,916 (26%)	7,368

The weighting procedure was applied in the data analyses to account for discrepancies between the ideal and actual student samples. Similar weighting procedures were also applied with 1975, 1978, 1981, and 1984 data in order to make comparisons across studies.

Table 4 describes the sex and grade-level distributions in the 1987 youth sample.

Some sampling biases should be considered in interpreting the results of the 1987 youth survey:

- The study sample included public school districts only. No attempt was made to sample nonpublic school students.
- School districts were permitted to not participate in the survey; 76 percent of the invited districts participated in the present study.
- Students and parents were permitted to not participate in the survey; 86 percent of the school districts met or surpassed their minimum sample size.
- No attempt was made to sample youth who were absent from school or who had "dropped out" of school.

Table 4
Student Completing the Survey by Grade Level and Sex

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Male	992 (48%)	1,007 (49%)	940 (47%)	1,032 (46%)	3,971 (48%)
Female	1,074 (52%)	1,040 (51%)	1,062 (53%)	1,207 (54%)	4,383 (52%)
Totals	2,066	2,039	2,004	2,234	8,344

3. Youth Survey Instrument

The 101-item survey was developed for administration to students in grades six, eight, 10 and 12. The instrument was designed to be readable and answerable by students at each of the four grade levels. Students were informed that it would take less than 50 minutes to complete the survey, that they could choose not to respond to some questions, and that their responses would remain confidential.

The survey was organized in six sections:

Demographic: questions 1-6
Peer influence: questions 7, 13-16, 34-39, 59, 60-64, 65-67
Parent influence: questions 7, 8-12, 59, 60-64, 84-85, 98-101
School influence: questions 59, 60-64, 79-83
Personnel preferences: questions 17-27, 28-33, 40-45, 46-49, 52, 55, 57, 65-67, 68-77, 83, 86-99
Substance use/nonuse: questions 50, 51, 53, 54, 56, 58

Several questions were designed to have students rate or assess the magnitude of the influence exerted by peers, parents and schools upon their substance behaviors.

The remainder of this report presents findings of the study grouped into four sections: self-reported substance use, influencers of substance use/nonuse behavior, personal variables, and summary and recommendations.

III. Self-Reported Substance Use and Nonuse

This section describes findings related to student substance use and nonuse. These findings are based on self-reported use and nonuse during the fall months of 1987.

Substance use data in the 1987 study were comparable to data collected nationally by the Institute for Social Research at the University of Michigan. Comparison of self-reported use between the four categories of school districts also appears to substantiate the reliability of the substance use/nonuse data.

This part of the report covers five topics: alcohol use and nonuse, tobacco use and nonuse, marijuana use and nonuse, other drug use and nonuse, and polysubstance use. Data in each section are presented according to the following format:

Age of onset
Frequency of use by grade level (1975-78-81-84-87)
Frequency of use by sex (1975-78-81-84-87)
Frequency of use by district size (1975-78-81-84-87)
Intent to use as adult
Summary

Some information about the frequency of substance use was clustered. The frequency-of-use questions (question 50 alcohol, question 56 marijuana, and question 58 other drugs) each had nine possible responses, clustered as follows:

Nonuse included:	I never use/drink, and I have used--, but I don't now
Casual use included:	Less than once a month, and about once a month
Regular use included:	2 or 3 times each month, and about once a week
Heavy use included:	2 or 3 times a week, 4 or more times a week, and about once or more each day

The frequency of tobacco use (question 53) is reported in tables as follows:

Nonuse included:	I never smoke tobacco, and I have smoked, but I don't now
Casual use included:	Smoke occasionally (1-6 times) each week
Regular use included:	Smoke several (7-25) times each week
Heavy use included:	Smoke 4-10 times each day, and smoke more than 11 times each day

The term "ever used" includes any reported frequency of use and the response, "I have used--, but I don't now."

All data appearing in tables are percentages of samples responding to the questions.

1. Alcohol Use and Nonuse

The age of onset for alcohol use was assessed by asking students how old they were the first time they ever had their own glass of beer or wine, shot of liquor, or a mixed drink of any kind. Student responses for this question are reported in Table 5.

Some observations are appropriate from Table 5. Approximately 95 percent of the 12th grade sample had tried alcohol. Most youth (62-74 percent) had tried alcohol by age 14. A slightly greater percentage of sixth and eighth grade youth had tried alcohol by age 12 than had their 10th and 12th grade counterparts.

The patterns for age-of-onset for alcohol use were similar in the 1978, 1981, 1984, and 1987 studies.

Table 5
Age of Onset for Alcohol Use by Grade Levels*

	Never Tried Alcohol	Tried Alcohol by Age 12	Tried Alcohol by Age 14	Tried alcohol by Age 16	Tried Alcohol by Age 18
Grade 6	54	46			
Grade 8	26	55	74		
Grade 10	11	44	74	89	
Grade 12	5	32	62	86	95

Age-of-onset data for 12th grade students did not vary in comparisons between the five study years. The percentage of 12th grade students who had never tried alcohol was 5-6 percent in each study year. More than 54 percent of the 12th grade students in 1987 had tried alcohol between ages 13 and 16, compared to 52 percent of 12th grade students in 1984, 50 percent of 12th grade students in 1981 and 49 percent of 12th grade students in 1978.

Age of onset for alcohol use data were compared between the various size categories of schools. These comparisons indicated that 73 percent of urban youth, 69 percent of semiurban youth, 68 percent of semirural youth, and 66 percent of rural youth had tried alcohol by age 16.

The frequency of alcohol use by grade level is reported in Table 6. This table presents the reported frequencies of alcohol use in 1975, 1978, 1981, 1984 and 1987.

Students were asked to identify the frequency of their alcohol use through the question, "During an average month, how often do you usually drink any amount of beer, wine or liquor?"

A few general patterns are apparent from the 1987 data in Table 6. The frequency of alcohol use increased with age. The greatest decreases in the number of nonusers seemed to occur both between sixth and 8th grade and between eighth and 10th grades. A relatively large increase (13 percent) in the number of casual users of alcohol seemed to occur between sixth and eighth grades. The largest increase (15 percent) in regular use of alcohol was apparent between eighth and 10th grades. The greatest increase (5 percent) in heavy use of alcohol was observed between 10th and 12th grades.

More students in each grade said that they were nonusers of alcohol in 1987 than did students in the other years studied. This downward trend in alcohol use was particularly noticeable in the casual use category for each grade level. There appeared to be a continuing downward trend for regular use of alcohol at the sixth and tenth grade levels. There also seemed to be a decline in the heavy use among 6th grade and 12th grade students.

Table 6
Percentages of Grade Level Samples Reporting Alcohol Use in 1975, 1978, 1981, 1984 and 1987

		Total	6th Grade	8th Grade	10th Grade	12th Grade
Nonuse	1975	39.1	62.6	43.3	28.6	16.1
	1978	41.2	67.5	52.0	28.0	19.2
	1981	45.8	72.6	53.7	32.7	19.8
	1984	47.7	80.4	58.2	34.4	22.4
	1987	50.7	83.3	60.6	37.7	23.2
Casual	1975	33.0	27.8	37.3	38.2	28.8
	1978	31.2	23.6	33.9	36.0	28.8
	1981	26.9	20.6	30.6	33.3	23.5
	1984	25.4	14.8	29.6	31.7	24.0
	1987	23.6	12.8	25.6	26.7	23.6
Regular	1975	20.9	7.8	16.2	27.9	36.5
	1978	21.3	7.3	11.9	29.6	36.8
	1981	21.3	5.8	14.3	28.6	39.4
	1984	21.0	3.9	10.4	27.7	39.5
	1987	20.0	2.8	11.4	25.9	38.3
Heavy	1975	6.9	1.7	3.2	7.3	18.4
	1978	6.2	1.6	2.3	6.4	15.1
	1981	6.0	1.1	1.4	5.4	17.3
	1984	6.0	.9	1.8	6.3	14.1
	1987	5.5	.8	2.2	6.8	11.7

Fig. A

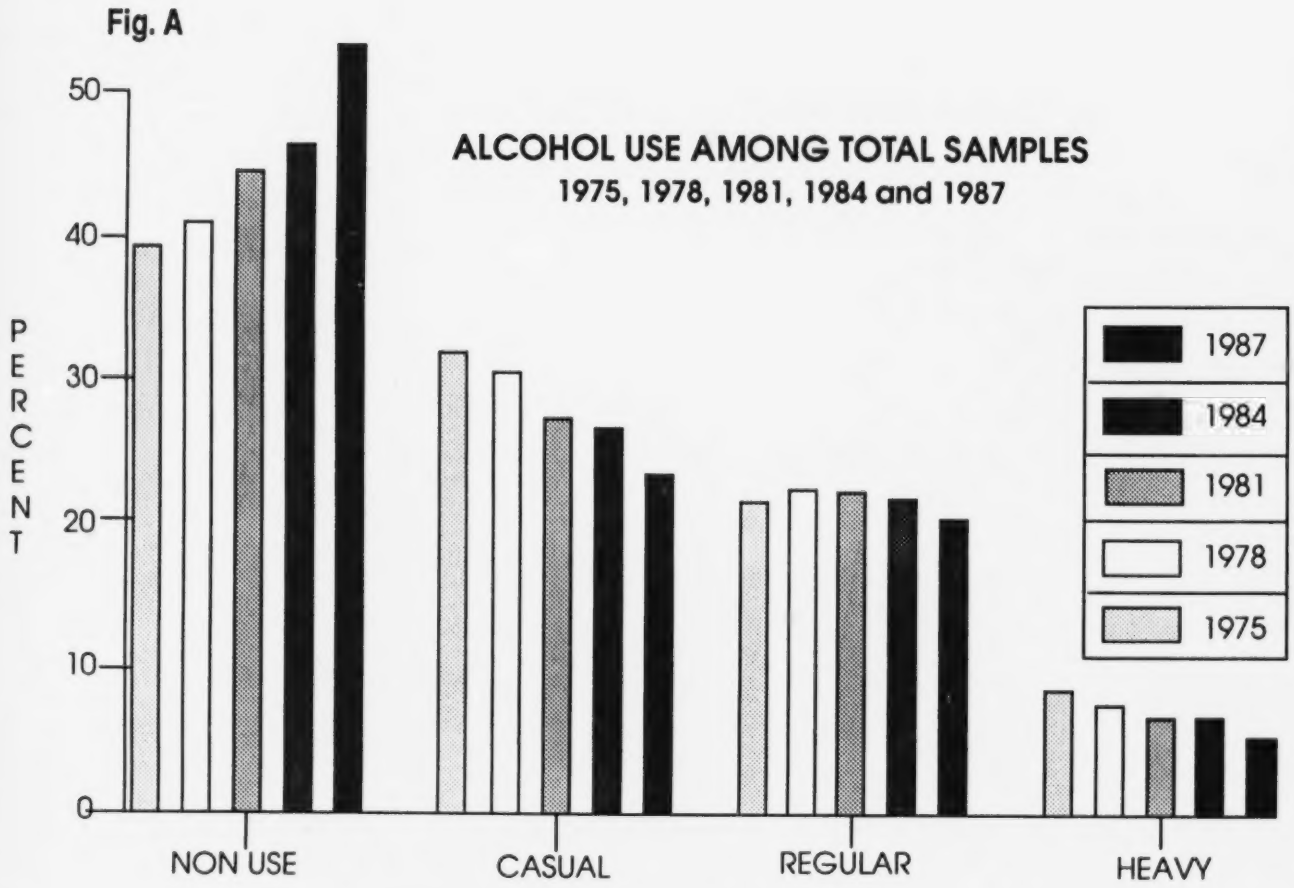


Figure A illustrates an increase in the number of nonusers of alcohol in 1987 as compared to 1975, 1978, 1981 and 1984. The graph also demonstrates a decline in the number of casual, regular and heavy users of alcohol.

Comparisons of male and female frequency of alcohol use are reported in Table 7. The 1987 data indicate that male and female students were very similar in the frequency of alcohol use. Female students were less likely to be heavy alcohol users and more likely to be abstainers than were male and students. Both male and female students were less likely to use alcohol in 1987 than they were in 1984. Male and female students were very similar in comparisons of their casual and regular use in 1987.

Table 7
Percent Male and Female Reporting Alcohol Use in 1975, 1978, 1981, 1984, and 1987

		Never Used	Ever Used	Casual	Regular	Heavy
Male	1975	33.4	*	35.3	22.7	8.7
	1978	39.4	71.2	29.1	23.6	7.8
	1981	30.4	69.6	26.7	23.4	8.7
	1984	33.8	66.2	25.7	21.2	7.7
	1987	38.2	61.8	23.2	20.2	6.8
Female	1975	45.0	*	30.8	19.2	5.2
	1978	42.7	63.7	33.1	19.3	4.8
	1981	35.3	64.7	25.6	23.5	5.2
	1984	39.2	60.8	25.2	20.9	4.4
	1987	40.6	59.4	24.0	19.8	4.3

*Unable to calculate due to wording of question in 1975

Some differences in alcohol use patterns among the four categories of school districts are evident in Table 8. In general, alcohol use in 1987 appeared to be least prevalent in semirural and rural schools and most prevalent in urban schools. Casual use was very similar in each category of school districts. Regular and heavy use was most frequently reported by urban students.

Comparisons of school districts in the various survey years indicate an increase in the number of nonusers of alcohol in 1987. This increase in nonuse occurred mainly in semiurban, semirural and rural districts. A comparison between the survey years indicate a decrease in the regular use of alcohol among semiurban, semirural and rural students. There was a decrease in heavy use of alcohol among students in semirural and rural districts.

Table 8
Percentages of Student Samples Reporting
Alcohol Use by District Size in 1975, 1978, 1981, 1984 and 1987

		Urban	Semiurban	Semirural	Rural	Total Sample
Nonuse	1975	40.8	41.0	38.5	37.3	39.1
	1978	35.7	43.6	42.0	43.2	41.2
	1981	46.7	49.7	45.6	42.8	45.3
	1984	46.1	47.6	49.5	47.6	47.6
	1987	46.9	51.1	53.9	53.7	50.7
Casual						
	1975	31.9	30.6	32.7	35.1	33.0
	1978	38.5	31.6	29.2	27.6	31.2
	1981	25.9	25.4	25.9	29.2	27.2
	1984	23.4	27.4	25.1	25.9	25.4
	1987	23.5	24.3	23.2	23.7	23.6
Regular						
	1975	19.5	21.7	20.7	21.6	20.9
	1978	20.5	20.0	22.3	22.0	21.3
	1981	20.7	19.2	22.2	22.4	21.5
	1984	22.6	20.4	20.0	20.8	21.0
	1987	22.4	19.5	18.4	17.8	20.0
Heavy						
	1975	7.8	6.7	8.1	5.9	6.9
	1978	5.3	4.8	6.6	7.1	6.2
	1981	6.7	5.7	6.2	5.7	6.0
	1984	7.9	4.5	5.5	5.7	6.0
	1987	6.8	5.1	4.6	4.9	5.5

Tables 9, 10 and 11 present data for student response to the question, "When you drink alcoholic beverages, how many drinks do you usually consume on any one occasion?" This was the second time the question was asked in the youth studies. It was chosen to indicate alcohol consumption "norms" among age groups, sexes and school district sizes. The norms are reported as follows:

Abstain:	I do not drink
Light:	Less than one drink
Moderate:	1 or 2 drinks
Heavy:	3 or 4 drinks
Very Heavy:	5 or 6 drinks or more than 6 drinks

Table 9
Percentages of Grade-Level Samples
Reporting Alcohol Consumed Per Drinking Occasion in 1987

	Total	6th Grade	8th Grade	10th Grade	12th Grade
Abstain	42	73	49	31	17
Light	14	17	22	12	7
Moderate	14	7	15	15	18
Heavy	13	1	8	18	24
Very Heavy	17	1	6	25	34

Table 10
Percentages of Student Samples
Reporting Alcohol Consumption By District Size in 1987

	Urban	Semiurban	Semirural	Rural	Total
Abstain	38	42	45	45	42
Light	13	15	15	15	14
Moderate	14	14	14	13	14
Heavy	14	13	12	11	13
Very Heavy	21	16	14	16	17

Table 11
Percent Male and Female Reporting
Alcohol Consumption per Occasion in 1987

		Abstain	Light	Moderate	Heavy	Very Heavy
Total Sample	**Males**	44	15	13	9	19
	Females	47	15	14	14	11
12th Grade Sample	**Males**	19	5	13	18	45
	Females	17	9	22	29	24
10th Grade Sample	**Males**	33	11	16	12	28
	Females	32	14	15	21	18

A general trend toward more alcohol consumption per drinking occasion was apparent in grades six through 12 (Table 9). Abstinence and light drinking were the "norms" for sixth and eighth grades. Among 10th grade students, 15 percent were moderate drinkers, 18 percent were heavy drinkers and 25 percent were very heavy drinkers. Among 12th grade students, 18 percent were moderate drinkers, 24 percent were heavy drinkers and 34 percent were very heavy drinkers.

Comparisons of alcohol consumption patterns among various sizes of school districts are reported in Table 10. Most comparisons between district samples indicate very similar patterns for alcohol consumption. Urban students were least likely to be represented as abstainers (38 percent) than were semiurban (42 percent), semirural (45 percent) and rural (45 percent) students. Urban students were most likely to be represented as heavy and very heavy drinkers (35 percent) than were semiurban (29 percent), semirural (26 percent) and rural (27 percent) students.

Male and female consumption norms are reported in Table 11. Male and female consumption norms appear to be very similar for abstinence and light and moderate consumption. Females more frequently report themselves to be heavy users than do males. By contrast, males were much more likely to report themselves to be very heavy consumers of alcohol than were females. Differences between male and female consumption patterns are most apparent for heavy and very heavy use among both 10th and 12th grade students.

Drinking norms were estimated by cross-tabulating the number of drinks consumed per occasion with the reported frequency of alcohol use. The data in Table 12 represent only the data for the sub-sample of students who reported themselves to be alcohol users.

Fifty percent of the alcohol user group reported use of alcohol about once per month. Of this sub-group, 36 percent reported consuming less than one drink per occasion and 33 percent reported consuming one or two drinks per occasion.

Thirty-nine percent of the alcohol user group reported that they used alcohol about once per week. Of this sub-group, 33 percent reported consuming three or four drinks per occasion and 45 percent reported consuming more than five drinks per occasion.

A small minority of alcohol users (11 percent) reported using alcohol two or more times per week. Of this sub-group, 17 percent reported consuming three to four drinks per occasion and 75 percent reported consuming five or more drinks per occasion.

Table 12
Drinks Consumed Per Occasion Among Alcohol User Groups

Frequency of Use	Drinks Per Occasion					
	Less Than 1 Drink	1 or 2 Drinks	3 or 4 Drinks	5 or 6 Drinks	More than 6 Drinks	Total Group
Once per month	36	33	18	8	5	1,815 50%
Once per week	4	18	33	22	23	1,429 39%
2 or more per week	0	8	17	26	49	386 11%
Total User Group	20	25	24	15	17	3,630

Table 13
Student's Intentions to Use Alcohol at Age 21*

	6th Grade	8th Grade	10th Grade	12th Grade	Total
I will not drink alcoholic beverages	45	27	19	13 (22)	26
About once a month	33	35	31	29 (38)	32
About once each week	13	23	33	38 (39)	27
About two or three times each week	6	11	13	17 (12)	12
About every day	1	3	4	3 (2.5)	3

*Numbers in parentheses represent percentages of 12th grade sample reporting alcohol use in 1984.

Among all reported alcohol users, 25 percent reported consuming one or two drinks, 24 percent reported consuming three or four drinks, and 32 percent reported consuming five or more drinks per occasion.

Table 13 presents data for students' responses to the question, "When you are 21 years old, how often do you think you will drink alcoholic beverages?" This question required students to estimate the frequency of alcohol use they might adopt as adults.

Intent to use alcohol seemed to vary with age. The percentages of students who reported that they would not use alcohol or would use it once a month decreased with each increase in grade level. The percentages of students who stated that they would use alcohol once each week or about two or three times each week increased with each increase in grade level. The number (1-4 percent) of students who intended to use alcohol about every day remained fairly constant across grade levels. Very few students (13-27 percent) in grades eight through 12 did not intend to use alcohol as adults.

The following statements summarize some of the more relevant findings concerning alcohol use and nonuse:

- Very few (5 percent) 12th grade students had not tried alcohol.
- Most Iowa youth (62-74 percent) had tried alcohol by age 14.
- Approximately 88 percent of 10th and 12th grade students had tried alcohol by age 16.
- More students reported themselves to be nonusers of alcohol in 1987 than did students in prior studies. A decline in the casual use groups likely accounts for the gains in the nonuse groups.
- Regular and heavy use of alcohol among total student samples appeared to remain fairly consistent across the five study years.
- Alcohol use in 1987 appeared to be least prevalent in semirural and rural schools and most prevalent in urban schools.
- Comparisons of study years indicate a decrease in 1987 in the regular use of alcohol among semiurban, semirural and rural students and a decrease in heavy use of alcohol among semirural and rural students.
- The frequency of alcohol use among male and female students was very similar. Females were less likely to be heavy users of alcohol than were males.
- A small percentage (26 percent) of students did not intend to use alcohol as adults. About 71 percent of the students intended to adopt a "moderate" alcohol use pattern as adults.
- "Heavy" and "very heavy" consumption norms became more frequent with each increase in grade level. Students reporting the consumption of three or more drinks per occasion rose from 9 percent of sixth graders to 76 percent of 12th graders.
- Male students were more likely to report very heavy alcohol consumption (five or more drinks per occasion) than were females.

2. Tobacco Use and Nonuse

Data on tobacco use were collected only in the 1981, 1984 and 1987 studies. The age at which students first tried tobacco is reported in Table 14. Students responded to the question, "How old were you when you first tried tobacco?"

The data in Table 14 indicate that many students have tried tobacco. The number of students who tried tobacco appeared to increase with age, with approximately 45 percent of the students trying tobacco by age 14. Comparisons of 1981, 1984 and 1987 data indicated that significantly fewer students at each grade level had tried tobacco in 1984.

The frequency of tobacco use is reported in Table 15. These data reflect student responses to the question, "During an average week, how often do you usually smoke tobacco. . . cigarettes, pipes, cigars?"

There was a problem of increased tobacco use with each higher grade level. The largest increase in the use of tobacco seemed to occur between sixth and eighth grades. The greatest increase in casual use of tobacco occurred between sixth and 8th grade. The largest increase in regular and heavy tobacco use was apparent between eighth and 10th grades.

Comparisons of 1981, 1984 and 1987 data indicate an overall rise in tobacco use in 1987. This increase in use occurred in most categories of use for eighth, tenth and 12th grade students.

Comparisons between male and female patterns of tobacco use are reported in Table 16. The data suggest that males and females are very similar in their tobacco use patterns.

An examination of the data in Table 17 reveals that tobacco use was most frequent among urban students and least frequent among rural students. Heavy tobacco use was most frequently reported for urban students and least frequently reported for rural students.

Table 18 describes the patterns of tobacco use students intended to adopt as adults. The data reflect student responses to the question, "When you are 21 years old, how often do you think you will smoke tobacco?"

Approximately 86 percent of the students did not intend to smoke tobacco as adults. There were very few differences between grade level samples in their intentions to use tobacco occasionally or several time each week. Very few students (1-11 percent) at any grade level intended to smoke tobacco four or more times each day. The intentions of 12th grade students to use tobacco as adults closely corresponded with their actual reported use of tobacco in 1987.

Table 14
Age of Onset for Tobacco Use

	Never Tried	Tried Tobacco by Age 12	Tried Tobacco by Age 14	Tried Tobacco by Age 16	Tried Tobacco by Age 18
Grade 6	82	18			
Grade 8	59	33	41		
Grade 10	43	36	49	57	
Grade 12	34	32	47	60	66

Table 15
Percentages of Grade Level Samples
Reporting Tobacco Use in 1981, 1984, and 1987

		Total	6th Grade	8th Grade	10th Grade	12th Grade
Never	1981	67.0	84.0	68.4	61.2	57.3
	1984	73.5	86.6	76.9	67.5	64.8
	1987	71.8	88.8	75.1	63.5	60.5
Stopped	1981	18.5	12.3	21.5	20.5	19.2
	1984	16.3	10.2	16.7	18.8	18.4
	1987	14.3	8.4	14.8	17.6	16.5
Casual	1981	5.3	2.7	5.0	7.2	6.1
	1984	4.6	2.4	3.9	6.2	5.8
	1987	5.1	1.7	5.4	5.8	7.3
Regular	1981	2.3	.6	1.7	2.8	3.7
	1984	1.5	.5	1.1	1.9	2.4
	1987	2.1	.5	1.5	2.9	3.5
Heavy	1981	6.9	.5	3.4	8.4	13.7
	1984	4.1	.4	1.4	5.5	8.7
	1987	6.6	.4	3.1	10.3	12.2

Table 16
Percent Male and Female Reporting Tobacco Use

		Never	Stopped	Casual	Regular	Heavy
Male	1981	67.4	19.6	4.3	2.3	6.4
	1984	73.4	16.6	4.6	1.6	3.8
	1987	75.6	13.7	4.5	1.6	4.6
Female	1981	66.6	17.5	6.3	2.2	7.4
	1984	73.5	15.9	4.7	1.5	4.4
	1987	75.1	13.2	4.7	1.8	5.1

Table 17
Percentages of Student Samples Reporting Tobacco Use by District Size in 1981, 1984, and 1987

		Urban	Semiurban	Semirural	Rural	Total
Never	1981	69.9	71.9	67.8	67.3	68.7
	1984	70.2	74.1	73.3	74.9	73.3
	1987	64.6	72.0	71.3	79.5	71.8
Stopped	1981	16.1	16.7	18.6	18.4	17.7
	1984	16.6	15.9	16.8	16.0	16.3
	1987	16.0	14.2	12.9	12.9	14.3
Casual	1981	5.6	3.6	4.4	5.9	5.1
	1984	5.2	4.0	4.4	4.6	4.6
	1987	5.6	5.6	4.3	3.9	5.1
Regular	1981	1.9	1.9	2.5	2.1	2.1
	1984	2.0	2.2	1.2	1.2	1.6
	1987	2.7	2.1	1.8	1.0	2.1
Heavy	1981	6.6	5.9	6.8	6.5	6.4
	1984	6.1	3.8	4.3	3.2	4.2
	1987	10.6	6.1	3.6	2.7	6.6

Table 18
Student's Intentions to Use Tobacco at Age 21*

	6th Grade	8th Grade	10th Grade	12th Grade	Total Sample
I will not smoke tobacco	95	88	81	80	86
Occasionally (1-6) times each week	3	6	7	7	6
Several times (7-25) times each week	1	1	3	2	2
About 4-10 times each day	1	2	3	5	3
About 11 or more times each day	0	3	6	6	4

The use of "smokeless tobacco" among Iowa youth is reported in Table 19. The question was phrased, "Do you use 'smokeless tobacco' (snuff, chewing tobacco, plug)?"

The data indicate that fewer students were using "smokeless tobacco" in 1987 than were using in 1984. The range for smokeless tobacco use was 1 percent in 6th grade to 7 percent in tenth and 12th grade.

The data for tobacco use and nonuse in 1981, 1984 and 1987 suggest the following observations:

- Approximately 50 percent of the youth have tried tobacco, with the greatest initial use occurring between ages 9 and 12.
- Approximately 14 percent of Iowa youth were tobacco smokers; the percentages ranged from 3 percent of sixth graders to 23 percent of 12th graders.
- The greatest increase in regular and heavy use of tobacco occurred between eighth and 10th graders.
- Comparisons of 1981, 1984 and 1987 data indicate an overall increase in tobacco use in 1987.
- Very few differences in the patterns of tobacco use existed between male and female students.
- Heavy tobacco use was most frequently observed among urban students and least frequently observed among rural students.
- Approximately 86 percent of the youth in the 1987 survey did not intend to smoke tobacco as adults.
- The use of "smokeless tobacco" is relatively uncommon (1-7 percent) among Iowa youth.

Table 19
Percentages of Grade Level Samples
Reporting "Smokeless Tobacco" Use in 1984 and 1987

		6th Grade	8th Grade	10th Grade	12th Grade
Never	1987	91	82	76	79
	1984	84	77	72	73
Stopped	1987	8	13	16	14
	1984	12	15	17	16
1-6/week	1987	1	3	4	3
	1984	3	6	6	5
Daily	1987	0	1	3	4
	1984	1	2	5	7

3. Marijuana Use and Nonuse

Students were asked to respond to the question, "How old were you when you first tried marijuana (pot, grass, hash)?" Their responses to this question are reported in Table 20.

The data in Table 20 indicate that most youth who have tried marijuana did so between ages 13 and 16. Approximately 40 percent of 12th grade students in 1987 had tried marijuana by age 18. This compares with 35 percent of 12th grade students in 1984, 44 percent of 12th grade students in both 1981 and 1978, and 43 percent of 12th grade students in 1975.

Data from 1978 indicate that 75 percent of sixth grade, 85 percent of eighth grade, 66 percent of 10th grade and 56 percent of 12th grade students had not tried marijuana. Data from 1987 indicate that 96 percent of sixth grade, 89 percent of eighth grade, 71 percent of 10th grade and 60 percent of 12th grade students had not tried marijuana. When the four study years (1978, 1981, 1984 and 1987) are compared, an overall downward trend in the use of marijuana is apparent.

Another treatment of the 1987 data revealed that 32 percent of urban youth, 21 percent of semiurban youth, 12 percent of semirural youth and 10 percent of rural youth had tried marijuana by age 18. This indicates that the larger the school district, the more likely that students would try marijuana and begin its use at an earlier age.

Frequency of marijuana by grade level samples is reported in Table 21. Students responded to the question, "During an average month, how often do you usually use any amount of marijuana (pot, grass, hash)?"

Table 20
Age of Onset for Marijuana Use by Grade Levels

	Never Tried Marijuana	Tried Marijuana by Age 12	Tried Marijuana by Age 14	Tried Marijuana Age 16	Tried Marijuana by Age 18
Grade 6	96	4			
Grade 8	89	7	11		
Grade 10	71	8	21	29	
Grade 12	60	6	15	33	40

Table 21
Percentages of Grade Level Samples
Reporting Marijuana Use in 1975, 1978, 1981, 1984 and 1987

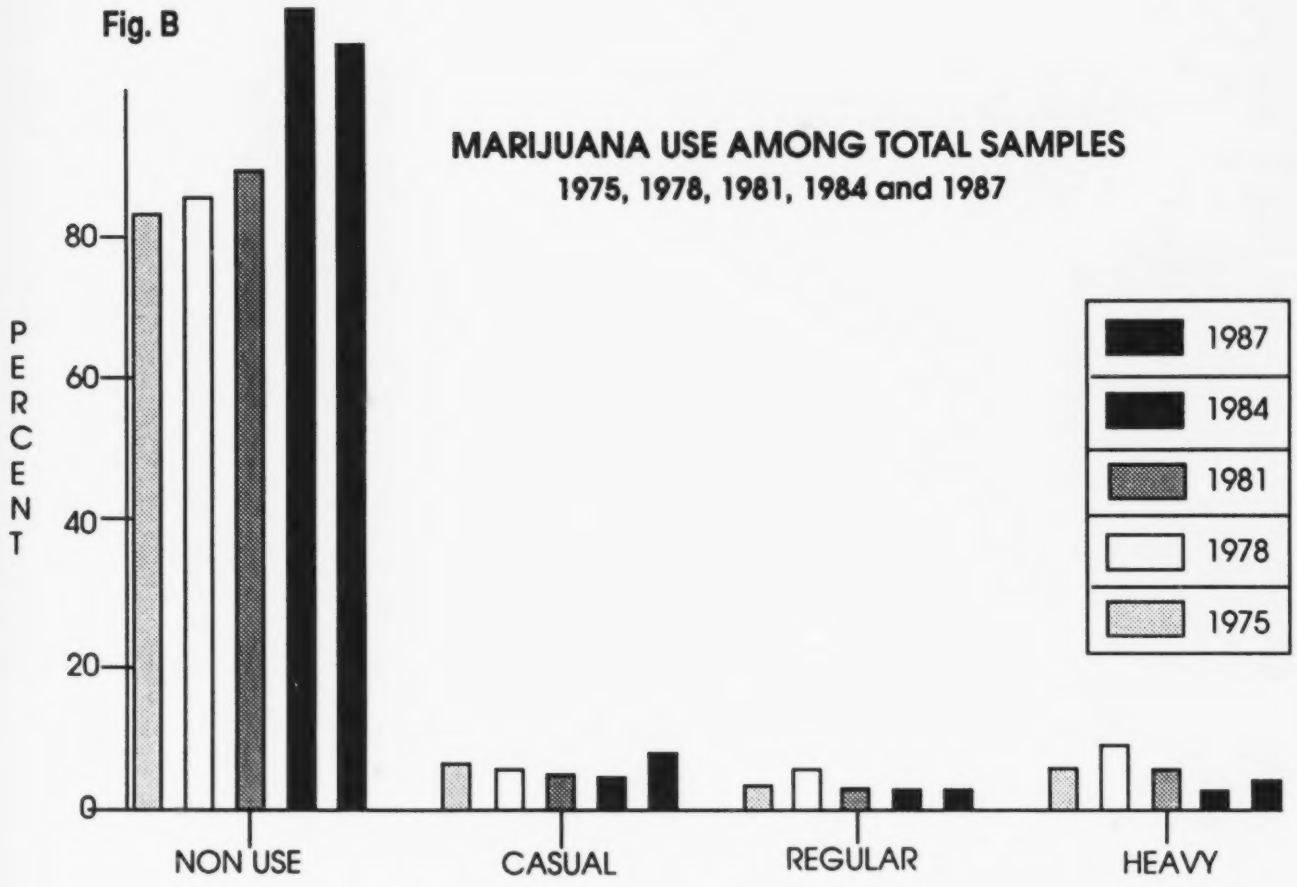
		Total	6th Grade	8th Grade	10th Grade	12th Grade
Nonuse	1975	83.5	98.2	87.2	77.5	66.3
	1978	84.5	88.3	89.6	78.1	72.7
	1981	89.1	98.4	93.3	84.9	77.8
	1984	92.0	98.8	96.2	89.1	84.9
	1987	90.7	98.9	94.6	87.0	82.7
Casual	1975	7.4	1.6	6.7	11.0	13.0
	1978	4.6	.6	3.3	5.4	8.4
	1981	4.0	.7	2.7	5.8	7.7
	1984	3.5	.4	1.8	4.9	6.5
	1987	4.5	.5	2.7	5.7	8.9
Regular	1975	3.9	.1	3.5	5.8	7.4
	1978	4.7	0.0	4.6	6.5	6.7
	1981	2.8	.2	1.8	4.9	4.9
	1984	2.5	.4	1.3	3.4	4.5
	1987	2.1	.2	1.0	3.8	3.3
Heavy	1975	5.1	.1	2.6	6.7	13.4
	1978	6.2	.1	2.6	10.1	12.0
	1981	4.0	.6	2.2	4.4	9.7
	1984	2.0	.4	.7	2.6	4.1
	1987	2.6	.2	1.5	3.5	4.9

An overview of Table 21 indicates that 1 percent to 17 percent of the 1987 sample were currently using marijuana. Marijuana use increased with each increase in grade level. The largest increase in the number of casual, regular and heavy users of marijuana seemed to occur between eighth and 10th grades.

A comparison of data from 1975, 1978, 1981 and 1984 discloses a downward trend in the use of marijuana across all grade levels. The data from 1987, however, indicate a slight increase in the casual and heavy use of marijuana across most grade levels. .

Figure B depicts the general trends in marijuana use among total samples in 1975, 1978, 1981, 1984 and 1987. The graph portrays a continuing decline in the number of marijuana users between 1975 and 1984. The graph also depicts a decrease in the number of nonusers of marijuana and an increase in the number of casual and heavy users of marijuana in 1987.

Fig. B



Marijuana use patterns for male and female students are depicted in Table 22. The data indicate few differences between males and females in marijuana use patterns. Male students were slightly more often represented in the heavy use category. A decline in the ever used, casual, regular, and heavy use of marijuana by both sexes is indicated by comparing data for the five study years.

Differences in marijuana use patterns by school district categories are exhibited in Table 23.

The 1987 data denotes some marked differences in marijuana use among the four categories of school districts. The overall pattern was that marijuana use became less frequent with each decrease in the size of school districts/communities. Most casual, regular and heavy users of marijuana were from urban schools.

When data from 1975, 1978, 1981, 1984 and 1987 are compared, semirural and rural school districts demonstrate a continuing decline in the casual, regular, and heavy use of marijuana. The comparisons aso indicate an increase in casual use among urban students.

Table 22
Percent Male and Female Reporting Marijuana Use in 1975, 1978, 1981, 1984 and 1987

		Never Used	Ever Used	Casual	Regular	Heavy
Male	1975	80.8	*	9.0	4.3	6.0
	1978	84.0	24.3	4.8	4.3	7.0
	1981	78.7	21.3	4.1	3.5	5.7
	1984	85.0	15.0	3.6	2.6	2.7
	1987	87.1	12.9	3.8	1.4	2.4
Female	1975	86.3	*	5.9	3.5	4.3
	1978	84.9	20.3	4.4	5.1	5.6
	1981	81.1	18.9	4.8	3.3	2.7
	1984	87.2	12.8	3.5	2.3	1.4
	1987	87.7	12.3	3.0	1.6	1.3

*Unable to calculate due to wording of question in 1975

Table 23
Percentages of Student Samples Reporting Marijuana Use by District Size in 1975, 1978, 1981, 1984, and 1987

		Urban	Semiurban	Semirural	Rural	Total
Nonuse	1975	78.6	82.9	83.9	86.9	83.5
	1978	76.9	84.3	87.1	88.0	84.5
	1981	82.6	89.7	90.5	91.7	89.5
	1984	87.3	89.4	93.3	95.2	91.9
	1987	85.5	89.7	95.6	96.9	90.7
Casual	1975	9.8	6.7	6.3	6.7	7.4
	1978	5.4	5.9	4.1	3.8	4.6
	1981	5.8	3.5	4.2	3.2	3.9
	1984	4.8	4.5	3.0	2.5	3.5
	1987	6.6	4.9	2.8	1.7	4.5
Regular	1975	5.8	3.7	3.3	3.0	3.9
	1978	8.3	2.8	4.2	3.5	4.7
	1981	4.9	2.4	2.2	2.5	2.8
	1984	3.5	4.1	2.0	1.3	2.5
	1987	3.3	2.5	.8	.5	2.1
Heavy	1975	5.7	6.6	6.5	3.3	5.1
	1978	9.5	6.9	4.6	4.7	6.2
	1981	6.9	4.4	3.2	2.8	3.8
	1984	4.4	2.0	1.7	1.0	2.1
	1987	4.2	3.0	.9	.9	2.6

Question 57 asked students, "When you are 21 years old, how often do you think you will use marijuana?" The responses are described in Table 24.

Approximately 92 percent of the students did not intend to use marijuana at age 21. Almost 13 percent of the 12th grade students expected to use marijuana at age 21.

Table 24
Student's Intentions to Use Marijuana at Age 21

	6th Grade	8th Grade	10th Grade	12th Grade	Total Sample
I will not use marijuana	98	94	89	87	92
About once a month	1	3	5	8	4
About once each week	0	1	2	2	1
About 2 or 3 times each week	0	1	2	2	1
About every day	0	1	1	1	1

The relevant findings concerning marijuana use and nonuse include:

- A majority of Iowa students (60-96 percent) had not tried marijuana.
- The greatest increase in the number of casual, regular and heavy use of marijuana seemed to occur between eighth and 10th grades.
- A downward trend in marijuana use appeared to have halted in 1984. Students in 1987 were observed to have increased in their casual and heavy use of marijuana.
- Female and male students used marijuana at nearly the same frequency. Males were slightly more likely to be heavy users.
- Casual, regular and heavy use of marijuana was more common among urban youth.
- Marijuana use appeared to be less frequent with each decrease in the size of school districts/ communities.
- A decline in the casual, regular and heavy use of marijuana was observed for semirural and rural students.
- Approximately 92 percent of the students in the 1987 study said they did not intend to use marijuana at age 21.

4. Other Drug Use and Nonuse

The age of onset for other drug use was assessed by asking students, "How old were you when you *first* tried drugs ('downers,' 'uppers' and/or 'hallucinogens' like LSD)?" Responses to this question are revealed in Table 25. Few students (2-19 percent) have tried other drugs. Evidently the 13 to 16 age range was the period of greatest experimentation with other drugs. Only 3 percent of the total sample reported trying other drugs by age 12 in 1987.

Approximately 19 percent of the 12th grade students in 1987 had tried other drugs as compared to 19 percent in 1984, 21 percent in 1981, 18 percent in 1978 and 11 percent in 1975.

Another treatment of the 1987 data reveals that 15 percent of urban youth, 12 percent of semiurban youth, 7 percent of semirural youth and 6 percent of rural youth had tried other drugs by age 18. This indicates that the larger the school district, the more likely that students would try other drugs and begin their use at an earlier age.

Table 25
Age of Onset for Other Drug Use by Grade Levels

	Never Tried Other Drugs	Tried Drugs by Age 12	Tried Drugs by Age 14	Tried Drugs by Age 16	Tried Drugs by Age 18
Grade 6	98	2			
Grade 8	94	3	6		
Grade 10	85	3	9	15	
Grade 12	81	2	5	14	19

Table 26
Percentages of Grade Level Samples
Reporting Other Drug Use in 1975, 1978, 1981, 1984 and 1987

		Total	6th Grade	8th Grade	10th Grade	12th Grade
Nonuse	1975	92.3	98.5	95.6	89.1	83.1
	1978	94.2	98.9	97.7	90.2	90.1
	1981	94.3	99.4	96.9	92.4	87.2
	1984	95.4	98.6	97.8	93.9	91.6
	1987	95.5	99.4	96.6	93.6	92.7
Casual	1975	5.1	1.0	3.7	7.1	10.0
	1978	3.1	.9	1.2	4.6	5.9
	1981	3.2	.5	1.8	4.8	6.8
	1984	2.4	.6	1.2	2.8	4.8
	1987	2.4	.2	1.7	2.8	4.6
Regular	1975	2.0	.4	.5	2.9	4.9
	1978	2.0	.1	.9	3.7	3.5
	1981	1.7	.2	1.1	1.8	3.9
	1984	1.2	.3	.6	1.9	2.0
	1987	1.1	.2	.8	2.0	1.4
Heavy	1975	.6	.1	.2	.6	1.9
	1978	.6	0.0	.1	1.5	.5
	1981	.8	0.0	.3	1.0	2.1
	1984	1.0	.5	.4	1.4	1.7
	1987	.8	.1	.5	1.6	1.1

Frequency of other drug use was represented by student responses to the question, "During an average month, how often do you usually use any amount of drugs such as 'downers,' 'uppers' or 'hallucinogens?' " Table 26 presents the findings for this question. The data indicate that very few students (approximately 5 percent) use other drugs. The frequency of other drug use increased with grade level. The greatest increase in regular and heavy use apparently occurred between eighth and 10th grade. The largest increase in casual use appeared to occur between 10th and 12th grade.

Comparisons of other drug use patterns between study years are difficult due to the small number of students represented in each use category. It appears that overall use of other drugs had leveled off at a low frequency in 1987.

Figure C illustrates the trends in other drug use during 1975, 1978, 1981, 1984 and 1987. The graph clearly portrays the small number of students who reported themselves to be users of other drugs.

Table 27 implies that very few differences in drug use patterns for female and male students existed in 1987. Male and female use patterns for other drugs were almost identical.

Fig. C

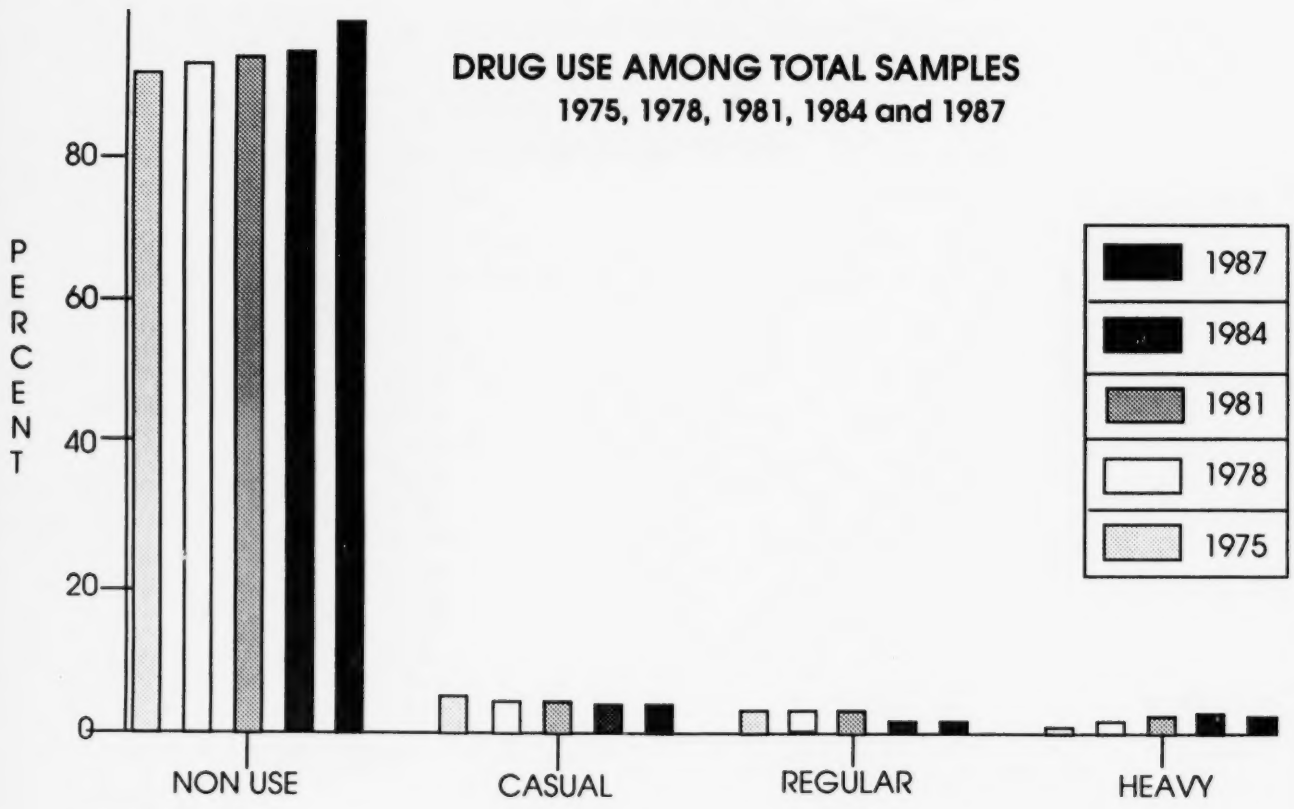


Table 27
Percent Male and Female Reporting Other Drug Use in 1975, 1978, 1981, 1984 and 1987

		Never Used	Ever Used	Casual	Regular	Heavy
Male	1975	92.1	*	5.8	1.6	.5
	1978	94.4	10.3	3.3	1.9	.5
	1981	88.3	11.7	3.8	2.0	1.0
	1984	91.0	9.0	2.5	1.4	1.0
	1987	92.1	7.9	2.0	.9	.9
Female	1975	92.5	*	4.4	2.3	.8
	1978	94.1	9.4	2.9	2.2	.8
	1981	88.6	11.4	3.6	1.5	1.0
	1984	90.7	9.3	2.3	1.1	1.0
	1987	92.1	7.9	1.9	1.0	.5

*Unable to calculate due to wording of question in 1975

Table 28
Percentages of Student Samples Reporting
Drug Use by District Size in 1975, 1978, 1981, 1984, and 1987

		Urban	Semiurban	Semirural	Rural	Total Sample
Nonuse	1975	91.7	91.2	92.0	93.4	92.3
	1978	94.2	94.1	95.5	93.7	94.2
	1981	93.2	94.0	94.9	94.6	94.2
	1984	92.6	95.0	95.7	96.8	95.3
	1987	93.6	95.1	97.3	97.7	95.5
Casual	1975	6.0	5.9	5.0	4.1	5.1
	1978	3.3	2.5	2.8	3.3	3.1
	1981	4.5	3.5	3.2	2.7	3.2
	1984	3.6	2.6	2.6	1.5	2.4
	1987	3.1	2.6	1.9	1.2	2.4
Regular	1975	1.6	2.4	2.2	1.8	2.0
	1978	1.6	2.5	1.1	2.6	2.0
	1981	1.6	2.1	1.3	1.7	1.7
	1984	2.1	1.4	1.0	.9	1.3
	1987	1.5	1.2	.8	.7	1.1
Heavy	1975	.7	.6	.9	.6	.6
	1978	.8	.8	.6	.5	.6
	1981	.6	.6	.7	1.2	.9
	1984	1.6	1.1	.8	.7	1.0
	1987	1.2	1.1	.1	.5	.8

Table 28 reveals a pattern in 1987 of more use of other drugs among urban and semiurban students than was apparent for students in semirural and rural schools. These differences between school samples were very small for each of the casual, regular and heavy use categories.

Comparisons between district categories and use patterns imply a general decrease in the casual, regular and heavy use of other drugs.

The data regarding other drug use and nonuse suggest the following summary:

- Very few (2-19 percent) youth had tried other drugs and very few (5 percent) continued to use them.
- Most experimentation with other drugs appeared to occur between age 13 and 16.
- The largest increase in regular and heavy use of other drugs occurred between eighth and 10th grade.
- Patterns of other drug use were nearly identical for female and male students.
- More students use other drugs in urban and semiurban schools than in semirural and rural schools.
- Only 1 percent of each student sample fit the heavy use pattern for other drugs.

5. Polysubstance Use and Nonuse

Data on polysubstance use provide a perspective on the number of students who use two or more substances concurrently. This section of the report discusses the percentages of grade level samples and total samples which reported nonuse (never and stopped) and use (casual, regular and heavy) of alcohol, marijuana and other drugs. The computer sorted data and counted frequencies according to the following scheme:

Nonuse of any substance (alcohol, marijuana or other drugs)
Alcohol use only (nonuse of marijuana and other drugs)
Marijuana use only (nonuse of alcohol and other drugs)
Drugs only (nonuse of alcohol and other drugs)
Alcohol and marijuana (nonuse of other drugs)
Alcohol and other drug use (nonuse of marijuana)
Marijuana and other drug use (nonuse of alcohol)
Use of all substances

There were eight possible categories for the polysubstance analyses. Very few students fit the "drugs only" and "marijuana and other drugs" categories, so these data are omitted from the tables.

Table 29 indicates that among 12th grade students, 23 percent did not use any of the substances; 58 percent used alcohol only; 12 percent used alcohol and marijuana only, and 5 percent used all substances.

Table 29 describes polysubstance use by grade levels in 1981, 1984 and 1987. The number of students in 1987 who reported nonuse of any substance decreased from 83 percent in sixth grade to 23 percent in 12th grade. "Alcohol only" accounted for the largest group of substance users in each grade level. Very few students at any grade level fit the categories of "marjuana use only" or "drug use only". The most frequently reported substance use combinations were "alcohol and marijuana" followed by "use of all substances". Slightly more than 3 percent of all students in the 1987 study reported using all substances.

Comparisons of 1981, 1984 and 1987 data reveal an increase in the number of students who were nonusers of any substance. The most apparent decrease in substance use in 1987 occurred for "alcohol only" and each of the grade levels and the "use of all substances" at 12th grade.

Polysubstance use in the total sample is presented for 1975, 1978, 1981, 1984 and 1987 in Table 30. The 1987 data show an increase in the number of students who were nonusers of any substance. The 1987 data reflect a continuation of a downward trend in the "use of all substances". There appeared to be a sharp decline in the number of students who were "alcohol only" users.

Table 31 contrasts polysubstance use patterns in the four categories of school districts. "Nonuse of any substance" appeared to be most frequent in semirural and rural districts in 1987. "Alcohol only" seemed to occur most frequently in rural districts and least frequently in urban districts. "Use of all substances" was most frequently reported by urban students and least frequently reported by rural students. The combined use of "alcohol and marijuana" was most frequently reported by urban and semiurban students.

Comparisons of 1981, 1984 and 1987 data depict a decrease in the "use of all substances" among students in all four school district categories. There was a continued decrease in "alcohol and marijuana" use among semirural and rural students. A decline in the number of "alcohol only" students was apparent in each school district category.

Table 29
Polysubstance Use in 1981, 1984 and 1987
by Grade Level

		Nonuse of Any	Alcohol Only	Marijuana Only	Alcohol and Marijuana	Alcohol and Other Drugs	Use of All Substances
6th Grade	1981	73.0	25.0	.3	1.1	.3	.1
	1984	80.2	17.9	0	.3	.3	.1
	1987	83.5	15.4	0	.6	.2	.3
8th Grade	1981	52.6	40.5	.5	3.3	.6	2.6
	1984	58.0	37.7	.3	1.8	.4	1.6
	1987	60.3	33.4	.3	2.9	1.1	1.8
10th Grade	1981	32.4	50.0	.3	8.9	1.3	6.9
	1984	34.6	53.0	.6	5.7	1.5	4.3
	1987	37.3	48.4	.4	7.6	1.3	4.8
12th Grade	1981	20.5	55.9	.4	11.0	1.4	10.4
	1984	22.2	60.9	.2	8.3	1.6	6.3
	1987	22.8	58.1	.3	11.7	2.0	4.9

Table 30
Polysubstance Use Among Total Samples
During 1975, 1978, 1981, 1984 and 1987

	Nonuse of Any	Alcohol Only	Marijuana Only	Alcohol and Marijuana	Alcohol and Other Drugs	Use of All Substances
1987	50.5	39.0	.3	5.8	1.0	3.0
1984	47.6	43.3	.3	4.2	1.0	3.3
1981	44.9	43.7	.3	5.4	.9	4.7
1978	31.1	44.0	.9	14.9	.5	8.5
1975	39.1	43.7	.3	9.3	.7	6.7

Table 31
Polysubstance Use within
Various Sized School Districts in 1981, 1984 and 1987

		Nonuse of Any	Alcohol Only	Marijuana Only	Alcohol and Marijuana	Alcohol and Other Drugs	Use of All Substances
Urban	1981	42.6	37.6	1.0	10.8	1.1	6.8
	1984	46.0	40.7	.7	5.7	1.1	5.4
	1987	46.7	38.3	.5	8.8	1.0	4.5
Semi-urban	1981	43.2	41.7	.4	7.1	1.4	6.0
	1984	47.0	41.3	.6	6.1	.9	3.6
	1987	50.9	37.4	.2	6.6	1.3	3.5
Semi-rural	1981	44.0	45.7	.1	5.1	.7	4.5
	1984	49.5	42.7	.2	3.5	1.3	2.8
	1987	53.7	40.6	.1	2.9	1.2	1.2
Rural	1981	43.5	47.7	.1	3.6	.8	4.2
	1984	47.9	46.3	.0	2.6	.8	2.1
	1987	53.5	42.2	.1	1.9	1.2	1.0

Table 32
Polysubstance Use By Sex

	Nonuse	Alcohol Only	Alcohol and Marijuana	Alcohol and Other Drugs	All Substances	Marijuana Only
Male	49.6	39.1	6.5	1.0	3.2	.2
Female	51.4	39.2	5.0	1.3	2.7	.3

Male and female polysubstance behaviors are reported in Table 32. The data describes very few differences between male and female students in their polysubstance behaviors.

6. Summary of Findings for Substance Use and Nonuse

Detailed summaries of the use and nonuse of specific substances were presented earlier. Some very broad observations are reported here:

- The frequency of substance use appeared to be a function of age, availability and opportunity. Substance use appeared to increase in frequency with each increase in age.
- Intent to use substances as an adult seemed to increase with each increase in grade level.
- The substance use patterns of female and male students were very similar.
- Data in 1987 seemed to verify a trend toward less student substance use following a peak substance use year of 1978.
- The age of onset data for 12th grade students indicates that a ranking of substances by "ever tried" is plausible. For 12th grade students, 95 percent had tried alcohol, 66 percent had tried tobacco, 40 percent had tried marijuana, and 19 percent had tried other drugs.
- Data comparisons between different categories of school districts suggest that substance availability and user anonymity are important factors. For example, marijuana use and polysubstance use were most frequent in urban districts and least frequent in rural districts. "Alcohol only" use was more frequent in rural districts than it was in urban districts.
- "Heavy use" of substances involved in a large number of Iowa youth in 1987.

Projections for 12th grade based on an enrolled population of 39,818 include:

4,659 heavy users of alcohol (11.7 percent norm)
4,858 heavy users of tobacco (12.2 percent norm)
1,952 heavy users of marijuana (4.9 percent norm)
438 heavy users of other drugs (1.1 percent norm)

Projections for 10th grade based on an enrolled population of 37,702 include:

2,564 heavy users of alcohol (6.8 percent norm)
3,883 heavy users of tobacco (10.3 percent norm)
1,320 heavy users of marijuana (3.5 percent norm)
603 heavy users of other drugs (1.6 percent norm)

Polysubstance use projections:

7,406 in 12th grade (18.6 percent norm)
5,165 in 10th grade (13.7 percent norm)

IV. External Influences on Substance Use and Nonuse Behaviors

Questions 59-64 provide a broad perspective on external influence on youth substance use and nonuse. Student responses on these questions are presented first as background for the more specific findings concerning the influence of family, peers and schools on youth substance decisions.

Questions 60-63 asked students to identify the persons who had most influenced their decisions not to use substances. Students responded to the question, "Who, on the following list of people, have most influenced your decision to *not* use alcohol, tobacco, marijuana or other drugs?" Table 33 shows the percentages of the nonuser groups who matched a specific person with the nonuse of a specific substance.

Among nonusers of substances, parents were perceived to exert the most influence on substance decisions (51-62 percent). The second, third and fourth most important sources of influence appeared to be friends, health teachers and siblings. The least influential appeared to be clergy and police officers.

The data does not suggest a specificity for "influencers." Parents were consistently perceived as the most important source of influence to not use alcohol, tobacco, marijuana and other drugs. Friends, health teachers and siblings also were perceived to have a consistent and general influence regardless of substance.

The data from questions 60-63 were also clustered by grade levels. Comparison of sixth grade responses with 12th grade responses indicates that school nurses, school counselors, health teachers, police officers, and counselors from an alcoholism/ drug treatment center all decreased in their relative influence on students' nonuse of substances. Parent influence remained high and consistent across grade levels. Only the percentage of students selecting peer (friend) influence increased with each increase in grade level. Apparently, peers exert a recognized and positive influence on the students' nonuse of alcohol, marijuana, tobacco and other drugs.

Question 64 attempted to assess a less direct source of influence, the credibility of information sources. Table 34 describes student responses to the question, "Where did you get the information which is most important to you about alcohol and other drugs?"

Students ascribed the most importance to substance information they received from parents, school counselors and TV or radio. This ranking varied from the ranking for perceived influences reported in Table 33. Parents were ranked first as both sources of information and influences to not use substances. School counselors ranked second as a source of information but fifth as an influence to not use substances.

Some grade level trends are apparent in Table 34. Parents and classroom teachers became less important sources of information with each increase in grade level. There was an increase in the perceived importance of information attributed to friends and personal experience with each increase in grade level.

The importance of media sources of information was also indicated in Table 34. Print and broadcast media were chosen slightly less often than parents as important sources of information. The school was the primary source for books, magazines and pamphlets for most students. This observation is relevant when considering a school's overall influence on students' substance use decisions.

Table 33
Perceived Influences on Substance Nonuse Decisions in 1987

	To Not Use Alcohol	To Not Use Tobacco	To Not Use Marijuana	To Not Use Other Drugs
Your parents	62	56	56	51
Your friends	10	13	15	16
A health teacher	8	14	10	11
Your brother/sister	4	6	5	5
A counselor from an alcohol/drug treatment center	6	2	5	7
A minister, priest, or rabbi	2	2	2	3
A police officer	3	2	3	3
A school nurse or counselor	4	5	4	5
Percent Total Sample Nonusers	78	91	96	98

Table 34
Most Important Source of Information about Substance (Percent of Grade Level Samples)

	6th Grade	8th Grade	10th Grade	12th Grade	Total Sample
Talking with parents	22	15	12	10	15
School classroom teacher	12	12	9	7	10
Friends	5	7	13	14	10
Someone who is now using alcohol or drugs	2	4	7	7	5
Personal experience	1	3	7	11	6
Brothers or sisters	3	4	5	4	4
Counselor from an alcoholism/drug treatment center	3	4	5	4	4
School assembly	4	6	4	4	4
Police or other law enforcement person	4	2	3	2	3
School counselor	18	18	12	13	15
Books, magazines, or pamphlets	10	12	12	12	12
TV or radio	16	14	12	11	13

Table 35 reports data regarding trust in communications about substances. The question read, "If you had a problem with alcohol or other drugs and you wanted to talk with someone about it, where would you most likely go for help?"

A close friend and parents were most often chosen as sources of help for a substance problem. A close friend was more frequently chosen as a source of help with each increase in grade level. The opposite trend was true for parents/guardians. "Don't know where I would go", was consistently the third most often chosen response. Clergy and family doctor consistently ranked at the bottom of the list as possible sources of help.

One way to summarize the data on external influences is to compare total frequencies of selection for various persons. Thee comparisons suggest:

PARENTS consistently rank first as influences to not use substances and as the most important source of information. Parents rank second to peers as a source of help.

PEERS rank second as influences to not use substances, third as a source of information and first as a source of help.

SCHOOL PERSONS (teacher, nurse and counselor) rank third as influencers to not use substances, second as a source of information, and seventh as a source of help.

SIBLINGS rank fourth as influencers to not use substances, seventh as a source of information and fifth as a source of help.

The remainder of this report describe findings about parent, peer and school influence on youth substance decisions.

Table 35
Perceived Sources of Help
for Substance Problem by Grade Level

	6th Grade	8th Grade	10th Grade	12th Grade	Total Sample
A close friend	32	45	49	57	46
Parents or guardian	30	18	12	11	18
Don't know where I would go	12	11	11	9	11
A crisis line or drug and/or alcohol treatment center	8	7	6	5	7
Brother, sister, or other young relative	4	7	8	7	7
A trusted adult (not mentioned above)	2	4	7	5	5
A school counselor or teacher	8	6	4	3	5
Minister, priest, rabbi	2	2	1	1	1
Our family doctor	1	1	1	0	1

1. Parent Influence

Several questions in the survey related to parental influence on student substance use or nonuse. For convenience, data are organized according to parent attitudes toward alcohol and marijuana (questions 8-9); parent guidelines regarding youth's use of alcohol, tobacco and marijuana (questions 10-12); and parent models of alcohol and tobacco use (questions 98-101). The data report is descriptive, and no attempt was made to correlate these items and student use or nonuse behaviors.

Questions 8 and 9 asked students to assess their parents' attitudes toward alcohol and marijuana. Students responded to the questions:

"Would your parents/guardians agree or disagree with this statement about alcohol?
Frequent use of alcohol can cause serious physical and psychological harm?"

"Would your parents/guardians agree or disagree with this statement about marijuana?
Frequent use of marijuana can cause serious physical and psychological harm?

Table 36 indicates that a large majority of youth perceive that their parents believe alcohol and marijuana use can be harmful. Students perceive their parents to have particularly strong negative attitudes toward marijuana. Only 6 percent of the students reported pro-alcohol views and only 4 percent of the students reported pro-marijuana views for their parents.

Table 36
Parent Attitudes
Toward Alcohol and Marijuana

	Parent Alcohol Attitudes	Parent Marijuana Attitudes
Parents would strong agree	52	78
Parents would agree	40	17
Parents would disagree	4	1
Parents would strongly disagree	2	3
Parents would not be sure	2	1

Questions 10-12 asked students to assess their parents' guidelines regarding the youth's use of alcohol, tobacco and marijuana. The questions were phrased as follows:

"What are your parents' feelings about your alcohol use?"

"What are your parents' feelings about your tobacco use?"

"What are your parents' feelings about your use of marijuana . . . pot, grass?"

Student responses to these questions are summarized in Table 37. The first row of data in the table indicates the percentage of the total sample which reported being nonusers of each of the substances. Data appearing in the remainder of the table are percentages computed on *user* responses. These data represent what users of alcohol, tobacco and/or marijuana perceived to be their parents' guidelines for such use.

Table 37
Parental Guidelines for Student Substance Use
(Percent of User Samples)

	Parents' Feelings-Alcohol	Parents' Feelings-Tobacco	Parents' Feelings-Marijuana
Percent of total sample nonuse	61	84	87
They don't know I drink/use . . .	38	32	66
They know I use . . . but wish I did not	27	41	14
They think I drink/use . . . too much	2	4	2
They know I drink/use . . . and don't care	6	2	4
They expect me to not get into trouble when I . . .	14	14	3
I don't know how they feel	13	7	10

Approximately 38 percent of alcohol users, 32 percent of tobacco users and 66 percent of marijuana users reported that their parents did not know about their substance use. Another 7-13 percent of the users reported that they did not know how their parents felt about their substance use. The choices, "They know I use . . . but wish I did not" and "they think I drink/ use . . . too much" were chosen by 29 percent of the alcohol users, 45 percent of the tobacco users and 16 percent of the marijuana users. The combined choices of "They know I drink/ use . . . and don't care" and "They expect me to not get into trouble when I use . . ." were selected by 20 percent of the alcohol users, 16 percent of the tobacco users, and 7 percent of the marijuana users.

The majority (61 percent) of tobacco users reported that their parents knew about this behavior. Nearly 51 percent of the alcohol users and 23 percent of the marijuana users reported that their parents knew about the substance use.

Questions 98 and 99 asked students to estimate the frequency of parent tobacco use. Responses to these questions are summarized in Table 38. Also included in the table are data for the frequencies of tobacco use among the total 12th grade sample in 1987.

Some differences in tobacco use are notable from Table 38. Students reported that their mothers were less frequently users of tobacco than their fathers. Fathers were more likely to have stopped smoking or to be heavy smokers than mothers. The sex differences in tobacco use were less apparent among boys and girls in the 1987 data (Table 16). The 1987 tobacco use patterns among 12th grade students were noticeably less than those of either parent model.

Questions 100 and 101 attempted to assess the frequency of alcohol use among parents. Responses are reported in Table 39.

Data in Table 39 imply that mothers are less frequent alcohol users than fathers. However, a greater percentage of mothers appeared to be occasional drinkers. The data indicate that fathers are more likely to be regular and heavy users of alcohol. Youth alcohol use was more similar to fathers' drinking patterns than mothers' drinking patterns. Twelfth grade youth, however, were more likely to be regular and heavy users of alcohol than either parent.

Table 38
Percentages of Total Sample Reporting
Parent Use of Tobacco

	Mother Question 103	Father Question 102	Percentage of Grade 12 Reporting Use
Never smokes	57	37	61
Stopped smoking	12	21	16
1-6 times each week	5	7	7
7-25 times each week	5	7	3
4-10 times each day	9	11	6
More than 10 times each day	10	12	7
Parent not present in home	2	5	--

Table 39
Percentages of Total Sample Reporting
Parent Use of Alcohol

	Mother Question 105	Father Question 104	Percentage of Grade 12 Reporting Use
Never drinks	29	15	14
Stopped drinking	7	10	9
Occasionally drinks	45	36	24
Few drinks each week	13	22	38
Two or more drinks each day	3	11	12
I don't know	3	6	--
Parent not present in home	0	0	--

2. Peer Influence

Questions about peer influence were prevalent throughout the youth survey. Sets of questions, however, were designed to assess peer modeling of substance use (questions 13-16) and peer norms/attitudes regarding substance use (questions 34-39). The first set of questions stated, "How many of your friends drink alcoholic beverages/smoke tobacco/smoke marijuana?" The second set of questions asked, "How do you think your close friends feel (or would feel) about you . . . ?" in relationship to six common substance behaviors.

Table 40
Peer Use of Alcohol,
Tobacco, and Marijuana in 1987

		None	A few (one or two)	Some (three or four)	Many (five or more)
How many of your friends drink alcoholic beverages?	Grade 6	72	16	4	3
	Grade 12	3	10	14	67
How many of your friends smoke tobacco?	Grade 6	81	10	2	2
	Grade 12	26	27	16	24
How many of your friends smoke marijuana?	Grade 6	91	3	1	1
	Grade 12	45	22	13	13
How many of your friends are having personal, school, or family problems related to their alcohol and/or other drug use?	Grade 6	88	8	1	1
	Grade 12	60	32	5	2

The data in Table 40 show an increase in the number of friends who use substance with each increase in grade level. This pattern held for each substance behavior and grade level. It became more and more likely that a student would encounter alcohol, tobacco and marijuana use among his/her peers and close friends as the students move to each higher grade level.

The 1987 data indicate that it was very rare (3 percent of the students) for 12th grade students not to have friends who used alcohol. 74 percent of the 12th grade students reported having friends who smoked tobacco and 55 percent reported having friends who smoked marijuana. In 1984 nearly 96 percent of the 12th grade students reported having friends who used alcohol, 70 percent reported having friends who smoked tobacco and 48 percent reported having friends who smoked marijuana.

A closer inspection of the data for questions 13-16 reveals some grade levels at which exposure to peer substance use greatly increased. Peer use of alcohol increased from 28 percent to 65 percent between sixth and eighth grade, and from 65 percent to 92 percent between eighth and 10th grade. A similar comparison is possible for tobacco use between eighth grade students (42 percent reported tobacco use among friends) and 10th grade students (62 percent reported tobacco use among friends). The largest increase in peer use of marijuana seemed to occur between eighth grade (21 percent reported marijuana use among friends) and 10th grade (40 percent reported marijuana use among friends).

Comparisons of 1984 and 1987 data indicate that there were few changes in reported peer use of alcohol. Reported peer use of tobacco and marijuana greater in 1987 than in 1984. For example, 45 percent of 12th grade students in 1987 reported that none of their peers used marijuana as compared to 48 percent of 12th grade students in 1984 who gave this response.

Also reported in Table 40 are student responses to the question, "How many of your friends are having personal, school, or family problems related to their alcohol and/or other drug use?" 12 percent of 6th grade students, 25 percent of eighth grade students, 36 percent of tenth grade students, and 43 percent of twelfth grade students knew friends who were experiencing substance-related problems.

Table 41 presents what youth perceived to be approved or disapproved substance behaviors among their peers. Students did not report strong peer approval of any of the six substance behaviors listed.

The 1987 data describe a general pattern of increased peer approval for each substance behavior with each increase in grade level. When responses are compared for each question it appears that, "getting drunk once or twice every week" (4-42 percent peer approval) and "taking 1-2 drinks every day" (7-23 percent peer approval) are the most likely of the six substance behaviors to be approved by peers. "Smoking marijuana" (2-22 percent peer approval) and "smoking one or more packs of cigarettes each day" (4-18 percent peer approval) were perceived to be the behaviors third and fourth most likely to be approved. The least often approved behaviors were "smoking marijuana regularly" (2-13 percent peer approval) and "trying another illegal drug such as cocaine or downers" (2-10 percent peer approval). A particularly salient finding from this data is that nearly 35 percent of 10th grade students and 42 percent of 12th grade students perceived that their peers would approve of getting drunk once or twice each week.

Comparisons of 1984 and 1987 data indicate only one clear difference in student responses. Students in 1987 reported more peer approval at each grade level for smoking tobacco than did students in 1984.

Table 41
Peer Norms Regarding Substance Use
(Percentage of Grade Level Samples)

		6th Grade	8th Grade	10th Grade	12th Grade	Total
Smoking marijuana	Approve	2	8	17	22	13
Smoking marijuana regularly (2 or more times each week)	Approve	2	5	11	13	8
Taking 1-2 drinks nearly every day	Approve	7	17	24	23	18
Getting drunk once or twice every week	Approve	4	13	35	42	24
Smoking one or more packs of cigarettes each day	Approve	4	10	17	18	12
Trying another illegal drug such as cocaine or downers	Approve	2	4	10	7	5

Table 42
Perceived Impact of School Programs
on Substance Behaviors for Total Sample

	Tobacco	Alcohol	Marijuana	Other Drugs	Over All Substances
Yes, decided to not use . . .	33	29	41	44	37
Yes, decided to stop using . . .	4	4	2	1	3
No, we have not talked about . . .	8	8	5	5	7
No, already decided not to use . . .	42	29	44	45	40
No, already decided to use . . .	10	28	6	4	12
No, decided to start or to use more . . .	1	2	1	1	1

3. School Influence

Table 42 represents a summary of student responses to questions 79-82 on the 1987 survey. The percentages in the table are based on total sample data.

The six responses for each of questions 79-82 reflect several types of influence that school programs might exert. The choices, "decided to not use . . ." and "decided to stop using . . . ," represent a direct positive influence of school programs. The choice, "already decided to not use . . . ," represents an indirect positive influence of school programs; the program reinforced a preselected behavioral choice. The choices, "we have not talked about . . ." and "already decided to use," reflect a basically neutral position relative to program influence on substance behaviors. Finally, the choice, "decided to start or to use more . . . ," indicate a negative influence of school programs. The findings on these questions indicate student perceptions of school program effects.

The data in Table 42 imply that school programs exerted some unique influences on each of the substance behaviors. According to student responses, school persons were most likely to discuss marijuana and other drugs in the classroom and least likely to discuss alcohol and tobacco. Responses also indicate that very few students had already chosen to use other drugs and marijuana. Conversely, a large group of students (42-45 percent) had already chosen not to use other drugs, marijuana and tobacco. Only 1 percent of the students reported that school programs influenced them to start using or to use more substances.

Apparently, school programs have influenced a large number of students (29-44 percent) not to use substances. School programs appeared to exert the most positive influence on other drug and marijuana behaviors and the least positive influence on alcohol behaviors. Few students (2-4 percent) reported that school programs had influenced them to stop using substances.

Student responses on questions 79-82 were also clustered by grade levels. There were some obvious decreases in the percentages of students at each grade level who stated that the school program influenced them to not use substances:

- to not use alcohol . . . sixth grade - 52 percent and 12th grade - 9 percent
- to not use tobacco . . . sixth grade - 51 percent and 12th grade - 19 percent
- to not use marijuana . . . sixth grade - 54 percent and 12th grade - 28 percent
- to not use other drugs . . . sixth grade - 55 percent and 12th grade - 34 percent

The percentages of grade level samples that reported "already decided to not use . . ." the various substances increased with grade level (except for alcohol). These grade level increments are illustrated as follows:

- prior decision to not use alcohol . . . sixth grade - 33 percent and 12th grade - 24 percent
- prior decision to not use tobacco . . . sixth grade - 35 percent and 12th grade - 50 percent
- prior decision to not use marijuana . . . sixth grade - 36 percent and 12th grade 52 percent
- prior decision to not use other drugs . . . sixth grade - 36 percent and 12th grade - 53 percent

In general, school programs appear to have the most positive influence on preventing marijuana and other drug use by youth. School programs also appear to have a strong positive influence on the nonuse of tobacco by youth. School programs have the least positive influence on the nonuse of alcohol.

4. Summary of External Influence Findings

Following is an outline of some of the more salient findings regarding the external influences of youth substance behaviors.

Parents

- Youth indicated that their parents were the most important source of influence on their substance nonuse decisions.
- Youth reported that their parents were the most important source of substance information and their second most likely source of help for a substance problem.
- A large majority of youth perceived that their parents believed alcohol and marijuana to have harmful effects.
- Youth who are substance users apparently receive a number of "mixed messages" from their parents about such behaviors.
- Reported patterns of tobacco use among 12th grade students were noticeably less than those of either their mothers or fathers.
- Reported patterns of alcohol use among 12th grade students were higher than those reported for either their mothers or fathers.

Peers

- Youth disclosed that their peers were the second most important source of influence on their substance nonuse decisions.
- Youth indicated that their peers were their third most important source of substance information and their most likely source of help for a substance problem.
- It was very likely that youth would associate with some friends/peers who used alcohol, tobacco, and marijuana.
- Peer modeling of tobacco, marijuana and other drug use was very similar between 1984 and 1987.
- Peer disapproval of some common alcohol, marijuana and tobacco behaviors decreased in frequency with each increase in grade level.
- Students did not report strong peer approval for any of the substance behaviors identified in the survey.
- Nearly 35 percent of 10th grade students and 42 percent of 12th grade students perceived that their peers would approve of "getting drunk once or twice each week."

Schools

- Youth indicated that school persons (teachers, nurse, counselor) were their third most important source of influence to not use substances.
- School persons were reported to be youths' second most important source of substance information and the seventh most likely source of help for a substance problem.
- School programs were reported to have had a positive influence on students' nonuse of other drugs, marijuana and tobacco.
- School programs were reported to have had the least positive influence on student alcohol use or nonuse.

Other

- Very few youth indicated that police and clergy had influenced their nonuse decisions.
- Police, clergy and family doctors were seldom chosen as a source of help or as an important source of substance information.

V. Personal Variables

Several questions are clustered under the category of personal variables. The questions were included in the youth survey to assess some internal influences on substance use or nonuse behavior. The questions also fit the categories of personal (adolescent) preferences and personal (adolescent) norms. Specifically, personal variable questions included:

Attitudes toward substances and substance behaviors (questions 17-33)
Substance knowledge (questions 68-77)
Motives for not using substances (questions 40-42)
Motives for using substances (questions 43-45)
Decision-making styles (questions 65-67)
Behaviors associated with nonuse (questions 86-90)
Behaviors associated with use (questions 92-97)

The results of personal variable questions are reported according to the format: overview of personal variables; alcohol behaviors and personal variables; marijuana behaviors and personal variables; and other drug behaviors and personal variables. The related behaviors section presents data relative to conforming and nonconforming behaviors. The last section presents a summary of the salient findings regarding personal variables.

1. Overview of Personal Variables

Questions 40-42 asked students what they thought were the two most important reasons for not using alcohol, not using marijuana and not using other drugs. Each question had eight possible responses. Five nonuse motives appeared among the eight possible choices for each substance. An additional group of four choices overlapped with two of the substance nonuse questions. Table 43 illustrates the overlap of nonuse motive choices between the three substance questions. The data are presented as percentages of the total 1987 sample.

Table 43
Overview of Motives for Not Using Substances
(Percentages of Total Sample)

	Not Using Alcohol	Not Using Marijuana	Not Using Other Drugs
They have better things to do	8	7	7
They don't like the way it makes them feel or behave	10	8	8
It's against their personal or religious beliefs	7	6	5
Is dangerous to their physical or mental health	20	36	31
There are too many risks of trouble with the police, employers, or school people	14	16	11
Their families disapprove	10	7	--
They don't like the people who use it	--	5	3
It's part of dropping out of life, something they don't want to do	--	16	13
They might become an alcoholic addicted to the other drugs	8	--	22
They might get into an accident and hurt someone	25	--	--

The data indicate that the total sample most often chose "... is dangerous to their physical or mental health" as the reason for not using alcohol (20 percent), marijuana (36 percent) and other drugs (31 percent). The response, "There are too many risks of trouble with the police, employers or school people" was frequently chosen for nonuse of alcohol (14 percent), marijuana (16 percent) and other drugs (11 percent). The three least often chosen reasons for not using substances were, "They have better things to do" (7 percent); "They don't like the way it makes them feel or behave" (8-10 percent); and "It's against their personal or religious beliefs" (5-7 percent).

The first and second most often chosen reasons for not using alcohol were, "They might get into an accident and hurt someone" (25 percent) and "alcohol use is dangerous to their physical or mental health" (20 percent).

The first and second most often chosen reasons for not using marijuana were, "Marijuana use is dangerous to their physical or mental health" (36 percent) and "It's part of dropping out of life . . ."/"There are too many risks . . ." (16 percent).

The first and second most often chosen reasons for not using other drugs were, "Other drug use is dangerous to their physical or mental health" (31 percent) and "They might become addicted to the other drugs" (22 percent).

The converse questions, reasons for using substances (questions 43-45), and their respective responses are reported in Table 44. The choices for these questions represented important reasons for using alcohol, marijuana and other drugs. Four responses (reasons for using) were repeated in each of the three questions. Another set of four responses overlapped with two questions. Each substance use question had seven possible responses from which to select two. The questions read, "Check what you think are the *two* (2) most important reasons for people drinking/using marijuana/using other drugs."

Table 44
Overview of Motives for Using Substances
(Percentages of Total Sample)

	Using Alcohol	Using Marijuana	Using Other Drugs
They like the way _____ makes them feel	16	20	17
Because they don't have anything else to do	3	2	2
They don't see anything wrong with _____	16	8	8
Because their (families and) friends use _____	13	21	18
To have a good time with people	21	11	--
To forget about their problems or unhappiness	24	18	--
To feel more important and confident/better about themselves	8	--	12
It's part of trying new things (curiosity, adventure)	--	19	10
To deal with the stresses and pressures of everyday life	--	--	31

Table 44 implies that students considered, "Because their (families and) friends use. . ." to be a major reason for using alcohol (13 percent), marijuana (21 percent) and other drugs (18 percent). Students seemed to consider, "To forget about their problems or unhappiness," to be an important reason for using either alcohol (24 percent) or marijuana (18 percent). The response, "They like the way. . . . . makes them feel," was a frequently selected reason for using alcohol (16 percent), marijuana (20 percent) and other drugs (17 percent). The least frequently selected reason for using alcohol, marijuana and other drugs was, "Because they don't have anything else to do."

The first and second most frequently chosen reasons for using alcohol were, "To forget about their problems or unhappiness" (24 percent) and "To have a good time with people" (21 percent).

The first and second most frequently chosen reasons for using marijuana were, "Because their friends use marijuana" (21 percent) and "They like the way marijuana makes them feel" (20 percent).

The most frequently selected reasons for using other drugs were, "To deal with the stresses and pressures of every day life" (31 percent) and "Because their friends use the other drugs" (18 percent).

When Tables 43 and 44 are compared, some findings are evident. Many students perceive positive affective consequences ("feel good" or "feel better") from substance use. Students also perceive positive social sanctions ("Because their familes/ friends use" and "To have a good time with people") to be associated with the use of alcohol and/or marijuana. Some students, however, did perceive negative social sanctions (e.g. trouble with school, police or employers) as a consequence of alcohol, marijuana or other drug use.

Several questions attempted to assess student attitudes toward substances (questions 28-33) and substance behaviors (questions 17-27). Table 45 reflects some general attitudes students have toward substance (questions 29, 31 and 33 are reported on later pages).

An overview of Table 45 reveals some patterns in the data. A large majority (77-91 percent) of students at each grade level agreed with the idea that one shouldn't take pills or drugs unless they are given by a physician. Differences among grade levels were evident in attitudes sampled in questions 30 and 32. Fewer students agreed with the statement, "Fewer people would use drugs if there were more drug arrests," with each increase in grade level. By 12th grade, fewer students agreed than disagreed with the "arrests" statement. As grade levels increased, fewer students appeared to agree with the statement, "It is hard for a teen to say no when offered alcohol or marijuana."

Student attitudes towared specific substance behaviors were sampled in questions 17-27. These questions were divided into sets as follows: alcohol behavior question 17-20, smoking behavior questions 21-22, marijuana behaviors questions 23-24, and instrumental behavior questions 25-27. Instrumental behaviors were defined as substance use for a specific purpose. Total frequencies for very bad/bad were tabulated as "con" data and total frequencies for good/very good were tabulated as "pro" data for each set of substance behaviors (e.g., alcohol behaviors). These pro and con frequencies were computed as percentages of each grade level holding such attitudes for a specific set of substance use behaviors. The "pro" substance use data for each grade level in 1987 are reported in Table 46.

The data suggest an increase in pro-substance attitudes with each increase in grade level. Another pattern is also exhibited in the table: alcohol and instrumental attitudes were very similar across all grade levels. For example, 54 percent of 12th grade students had pro-alcohol use attitudes and 50 percent had pro-instrumental use attitudes. Students appeared to be most in favor of instrumental substance use (28-50 percent) and alcohol use (27-54 percent). Students appeared to least favor marijuana use (5-21 percent) and tobacco use (10-33 percent).

Student responses to the instrumental use questions are exhibited in Table 47. Some patterns are evident in this attitudinal data. Students considered the use of birth control pills more favorable than the use of a drug to lose weight or to help a nervous person relax. An increase in pro-use attitudes was most apparent between sixth and 8th grade students.

Table 45
General Student Attitudes Toward Substances
(Percent of Grade Level Samples)

		6th Grade	8th Grade	10th Grade	12th Grade	Total
You shouldn't take any kind of pills or drugs unless your doctor gives them to you	Agree	91	85	77	77	83
Fewer people would use drugs if there were more drug arrests	Agree	64	60	48	43	53
It is hard for a teen to say no when offered alcohol or marijuana	Agree	67	63	60	53	61

Table 46
Overview of Student Attitudes Toward Substances
(Percent of Grade Level Samples)

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Pro Alcohol	27	34	45	54	40
Pro Tobacco	10	20	31	33	24
Pro Marijuana	5	10	17	21	14
Pro Instrumental	28	40	47	50	41

Table 47
Student Attitudes Toward Instrumental Substance Use
(Percent of Grade Level Samples)

		6th Grade	8th Grade	10th Grade	12th Grade	Total
Use of a drug to help a nervous person to relax.	Pro	14	19	24	26	21
Use of birth control pills.	Pro	46	67	82	89	71
Using a drug to lose weight.	Pro	25	33	35	34	32

Questions 68-77 attempted to sample student knowledge about substances and substance laws. Table 48 represents the percentage of students who correctly answered each question at each grade level. The topic of each question is described in the table. All questions were presented in a multiple-choice format with four possible answers and the option to respond, "I don't know".

Table 48 describe some patterns in student knowledge. Students most frequently knew the correct response concerning "smoking and pregnancy", "tolerance for a substance", and "drinking and driving". Students were least often correct in answering the questions about "immediate risks of substances", "physical dependency" and "heart and blood pressure risks of cocaine".

In general, more students knew the correct response to the questions with each higher grade level. More than 70 percent of 12th grade students knew the correct responses to only four questions: "smoking and pregnancy", "tolerance for a substance", intoxication level for drunk driving", and "drinking and driving". Less than 50 percent of 12th grade students knew the correct responses five questions: "heart and blood pressure risks of cocaine", "marijuana clearance", "immediate risks of substances", "physical dependency" and "drunk driving risks".

Table 48
Substance Knowledge by Grade Level
(Percent Correct)

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Smoking and pregnancy	32	53	61	71	54
Alcohol is a depressant drug	7	22	38	59	32
Tolerance for a substance	19	41	61	76	50
Intoxication level for drunk driving	7	24	65	74	43
Drinking and driving	15	35	61	75	47
Heart and blood pressure risks of cocaine	15	24	30	43	28
Marijuana clearance	12	26	38	50	32
Immediate risks of substances	5	7	8	10	7
Physical dependency	3	8	12	18	10
Drunk driving risks	37	47	51	48	46

2. Alcohol Behaviors and Personal Variables

This section focuses on motives for not using and using alcohol, general attitudes toward alcohol, attitudes toward specific alcohol use behaviors and decision making in two alcohol-use situations. The section is designed to indicate how personal variables might affect alcohol use or nonuse.

Motives for not using alcohol were assessed through question 40, "Check what you think are the two most important reasons for people not drinking." The data in Table 49 are arranged according to response frequencies for each of the eight possible choices. The first and second most frequently chosen reasons for not using alcohol were, "They might get into an accident . . ." and "alcohol is dangerous . . . ." The two reasons decreased in frequency of choice with each increase in grade level. The response, "They might become an alcoholic," also decreased in frequency with each increase in grade level. Three responses, "There are too many risks . . . ," "Drinking is against their personal . . ." and "They don't like the way it makes them feel . . . ," increased in frequency with each increase in grade level. "Their families disapprove of drinking" remained fairly high in frequency of choice regardless of grade level.

Motives for using alcohol were sampled through question 43, "Check what you think are the two most important reasons for people drinking." Table 49 is listed according to the percentages of students selecting each of the seven possible responses.

Table 49
Motives for Not Using Alcohol

	6th Grade	8th Grade	10th Grade	12th Grade	Total
They might get into an accident and hurt someone	28	25	24	22	25
Alcohol is dangerous to their physical or mental health	25	23	18	13	20
Their families disapprove of drinking	10	11	10	9	10
There are too many risks of trouble with police, employers, or school people	10	12	16	17	14
Drinking is against their personal or religious beliefs	2	4	9	11	7
They don't like the way it makes them feel or behave	8	8	11	13	10
They might become an alcoholic	10	10	7	6	8
They have better things to do	7	9	8	8	8

Table 50
Motives for Using Alcohol

	6th Grade	8th Grade	10th Grade	12th Grade	Total
To forget about their problems or unhappiness	31	28	20	18	24
To have a good time with people	14	18	24	26	21
They like the way alcohol makes them feel	14	14	17	20	16
They don't see anything wrong with drinking	18	15	15	16	16
Because their families and friends drink	13	14	13	11	13
To feel more important and confident	9	9	8	6	8
Because they don't have anything else to do	3	2	2	3	3

The two most frequently selected reasons for drinking were, "To forget about their problems . . ." and "To have a good time with people." Two responses, "To have a good time with people" and "They like the way alcohol makes them feel," increased in frequency of selection with each increase in grade level. The two responses, "Don't see anything wrong . . ." and "Because their families and friends drink," were consistently chosen at similar frequencies regardless of grade level. The response, "To feel more important and confident" and ". . . don't have anything else to do," were consistently chosen least often by students at each grade level.

Questions 31 and 33 were designed to assess general student attitudes toward alcohol. Table 51 reveals that most students (74-94 percent) disagreed with the statement, "Alcohol will help you to be more friendly and outgoing." The 19 percent of 10th grade and 26 percent of 12th grade students who agreed with this statement corresponds well with the 24 percent of 10th grade and 26 percent of 12th grade students who chose, "to have a good time with people," as a most important reasons for using alcohol.

A majority of students at 10th and 12th grade levels agreed with the statement, "There is nothing wrong with drinking beer or wine." The percentage of students who agreed with the statement increased with each increase in grade level.

Questions 17-20 described some specific alcohol use and nonuse behaviors and asked students to judge whether they thought the behaviors were good or bad. Responses to the series of questions are reported in Table 52. Large majorities of students (88-95 percent) indicated that they feel drinking and driving is a bad behavior. Large percentages of each grade considered refusing a drink at a party a good behavior. The greatest contrast in grade level responses was to question 18. Drinking several alcoholic beverages at a party was an approved behavior among 9 percent of the sixth grade students and 63 percent of the 12th grade students. Approximately 31 percent of the sixth grade students approved of drinking two or three alcoholic beverages after work, while 63 percent of 12th grade students approved of the behavior.

Questions 66 and 67 presented two situations that required an alcohol use and nonuse decision. Students were instructed to select one response they were likely to make in each of the following:

"Imagine that you stopped at a friend's house after school. None of your friend's family are home. Your friend takes two cans of beer out of the refrigerator and offers you one. What would you likely do?" (Question 66)

"Imagine that you and your friends are planning what you are going to do before and after a school dance. Two of your friends suggest having a few drinks before the dance, and then after an hour at the dance, go to an apartment for a party. What are you likely to do?" (Question 67)

Table 51
General Student Attitudes Toward Alcohol
(Percent of Grade Level Samples)

		6th Grade	8th Grade	10th Grade	12th Grade	Total
Alcohol will help you to be more friendly and outgoing	Agree	6	8	19	26	15
There is nothing wrong with drinking beer or wine	Agree	22	35	52	64	43

Table 52
Student Attitudes Toward Specific Alcohol Behaviors
(Percent of Grade Level Samples)

		6th Grade	8th Grade	10th Grade	12th Grade	Total
Not accepting an alcoholic beverage at a party	Good	87	90	92	96	92
Drinking several (three or more) alcoholic beverages at a party	Good	9	20	44	63	34
Drinking two or three alcoholic beverages before driving	Good	5	5	7	12	7
Drinking two or three alcoholic beverages at home to relax after work	Good	31	7	57	63	49

Student responses to the beer-at-a-friend's-home question are reported in Table 53 responses to the alcohol-and-friend's-plans situation are presented in Table 54.

With the exception of sixth graders, the most frequently selected (28-54 percent) response to the beer-at-a-friend's-house situation was, "Take the can of beer and drink it." The second and third most frequently chosen responses were to "Refuse the can of beer, but stay there" and "Refuse the can of beer and ask for a soft drink." Very few students at any grade level selected, "Take the can of beer but not drink it" and "Offer an excuse for not taking the beer." The least popular response was "Refuse the beer and threaten to tell your friend's parents." Aside from 26 percent of sixth grade students, very few students chose the response of refusing the beer and going home.

Several grade level differences were apparent in student responses to the friends-alcohol-dance situation. Two responses which involved non-drinking modifications of the friends' plan were very infrequently chosen. Responses which required acquiescence to the friends' plan with limited drinking were chosen by 12 percent of the sixth grade students and 37 percent of the 12th grade students. A response which totally rejected the friends' plan and drinking was chosen by 52 percent of the sixth grade students and 17 percent of the 12th grade students. The percentage of students choosing "go along with your friends' plan and get drunk" increased from 3 percent of sixth grade to 30 percent of 12th grade students. The number of students who would choose to go along with their friends but not drink remained fairly consistent (11-14 percent) across grade levels.

Table 53
Student Decisions Regarding Alcohol Use at Friend's Home

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Refuse the can of beer, but stay there	11	17	17	19	16
Take the can of beer and drink it	8	28	47	54	35
Take the can of beer, but not drink it	3	6	3	2	4
Try to persuade your friend to not drink the beer	27	17	6	3	13
Refuse the beer and go home	26	11	4	2	11
Refuse the beer and threaten to tell your friend's parents	4	2	1	0	2
Refuse the beer and ask for a soft drink	14	14	17	15	15
Offer an excuse for not taking the beer ("I don't like the taste" or "Dad will be angry")	5	6	6	3	5

Table 54
Student Decisions Regarding Alcohol Use in Group Situations

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Refuse to go along with their plans, but go to the dance with your date	52	37	22	17	31
Go along with your friends' plan and get drunk	3	12	27	30	18
Have a few drinks with your friends before the dance and then remain at the dance	2	4	4	4	4
Refuse to drink before the dance but go to the party and limit your drinking	8	12	14	16	12
Offer to host a nondrinking party at your home after the dance	8	4	2	1	4
Go along with your friends' plan, but limit the number of drinks you have	2	7	11	17	10
Propose a nondrinking plan for the evening	9	8	7	4	7
Go along with your friends but not drink	14	16	13	11	13

3. Marijuana Behaviors and Personal Variables

This section includes data relevant to motives for not using and using marijuana, general attitudes toward marijuana, attitudes toward specific marijuana use or nonuse behaviors, and decision making in one marijuana use situation. It also describes some personal variables which might be related to marijuana use and nonuse.

Nonuse motives were assessed through student responses to question 41: "Check what you think are the two most important reasons for people not using marijuana (pot, grass)." Students could choose from a list of eight possible responses. Response patterns to this question are reported in Table 55.

The most frequently selected reason for not using marijuana was "... is dangerous to their physical or mental health" (33-38 percent). The second most frequently chosen reason for nonuse was, "... too many risks of trouble ...." The third most frequently selected reason for nonuse was, "It's part of dropping out of life ...." There were very few differences between grade levels in response patterns for any of the nonuse reasons. The response, "Marijuana use is against their personal or religious beliefs," increased from 3 percent of sixth grade to 10 percent of 12th grade students.

Table 55
Motives for Not Using Marijuana

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Marijuana is dangerous to their physical or mental health	38	38	35	33	36
There are too many risks of trouble with the police, employers, or school people	15	17	16	16	16
It's part of dropping out of life, something they don't want to do	21	17	15	13	16
Their families would disapprove	7	7	7	7	7
Marijuana use is against their personal or religious beliefs	3	3	7	10	6
They don't like the way it makes them feel or behave	6	7	8	9	8
They don't like the people who use it	5	5	6	5	5
They have better things to do	6	6	6	7	7

Question 44 identified motives for using marijuana: "Check what you think are the two most important reasons for people using marijuana (pot, grass)." The seven responses are listed by frequency of choice in Table 56.

The first and second most frequently selected reasons for using marijuana were, "Because their friends use marijuana" (18-22 percent) and "They like the way marijuana makes them feel" (18-22 percent). The third and fourth most often selected reasons for using marijuana were, "It's part of trying new things" (16-22 percent) and "To forget about their problems or unhappiness (15-21 percent). The least frequently chosen reason for using marijuana was, "Because they don't have anything else to do".

Table 56
Motives for Using Marijuana

	6th Grade	8th Grade	10th Grade	12th Grade	Total
It's part of trying new things (curiosity, adventure)	16	19	20	22	19
Because their friends use marijuana	22	22	21	18	21
To forget about their problems or unhappiness	21	19	18	15	18
They like the way marijuana makes them feel	18	19	21	22	20
To have a good time with people	11	11	10	12	11
They don't see anything wrong with using marijuana	9	7	8	9	8
Because they don't have anything else to do	2	2	2	2	2

Only one question in the survey assessed general attitudes toward marijuana. Table 57 reports responses to this question. The data reveal a large difference between sixth and 12th grade students' attitudes toward experimentation with marijuana. Approximately 8 percent of sixth grade and 35 percent of 12th grade students agreed with the statement in 1987. Comparable figures for 1981 were 12 percent of sixth grade and 45 percent of 12th grade students agreeing with the marijuana experimentation statement.

Two questions described some common marijuana behaviors. Students were asked to judge each behavior as either good or bad. The findings for these attitudinal questions are reported in Table 58.

Very few students considered either "smoking marijuana at a party" or "using marijuana to relax" good behaviors. The number of students who approved either behavior increased with each increase in grade level. Students in eighth, 10th and 12th grades in 1987 were more disapproving of marijuana use than were their counterparts in 1981.

Question 65 dealt with peer influence to use marijuana. The question was: "What would you do if your friends began smoking marijuana and they kept pressuring you to smoke with them?" Students were provided with eight possible responses for this question. Data for question 65 are reported in Table 59.

The first and second most frequent responses were, "Try to get them to stop smoking marijuana" (21-29 percent) and "Avoid being with them when they smoke marijuana" (11-25 percent). The least frequently selected responses were, "Tell school people or police" (0-7 percent) and "Tell your parents" (2-15 percent). Two responses increased in frequency of selection with each increase in grade level. These responses were, "Say no, but still hang around with them" (from 8 percent to 23 percent) and "Avoid being with them when they smoke marijuana" (from 11 percent to 25 percent). Two responses decreased in frequency of selection with each increase in grade level. These responses were, "Try to get them to stop smoking marijuana (from 21 percent to 29 percent) and "Find a new group of friends" (from 13 percent to 25 percent). Approximately 4 percent of the sixth grade and 15 percent of the 12th grade students indicated that they would yield to peer influence and "Try smoking . . ." or "Start smoking marijuana . . ."

Table 57
Students' General Attitude Toward Marijuana

			6th Grade	8th Grade	10th Grade	12th Grade	Total
There is no harm in taking marijuana once or twice to find out what it is like	**Agree**	1987	8	16	29	35	22
	Agree	1984	9	14	24	34	21
	Agree	1981	12	24	34	45	28

Table 58
Students' Attitude Toward Marijuana Behavior
(Percent of Grade Level Samples)

			6th Grade	8th Grade	10th Grade	12th Grade	Total
Smoking marijuana at a party	**Good**	1987	4	8	13	16	10
	Good	1984	4	6	12	17	10
	Good	1981	3	10	10	27	14
Using marijuana to relax	**Good**	1987	4	8	10	13	9
	Good	1984	5	6	11	14	9
	Good	1981	3	11	18	23	13

Table 59
Student Decisions Regarding Marijuana Use in a Group Situation

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Try smoking marijuana once and then stop	3	7	8	7	6
Start smoking marijuana with them	1	4	7	8	5
Say no, but still hang around with them	8	15	20	23	17
Avoid being with them when they smoke marijuana	11	17	21	25	19
Try to get them to stop smoking marijuana	29	26	23	21	25
Find a new group of friends	25	21	14	13	18
Tell your parents about the situation and follow their advice	15	7	4	2	7
Tell school people or police and let them take care of it	7	2	1	0	2

4. Other Substances and Personal Variables

This section reports findings about motives for using and not using other drugs, and attitudes toward specific tobacco use or nonuse behaviors. The 1987 survey was not designed to assess motives for using or not using tobacco nor did it include attitudinal questions related to specific drug use or nonuse behaviors. No decision making situations were presented for tobacco or other drugs.

Question 42 required students to, "Check what you think are the two most important reasons for people not using other drugs such as uppers, downers or hallucinogens." Responses to this question are described in Table 60.

The two most frequently selected reasons for not using other drugs, regardless of grade level, were, "Other drugs are dangerous to their physical or mental health" (29-32 percent) and "They might become addicted to other drugs" (21-22 percent). The two least frequently chosen reasons for not using other drugs, regardless of grade level, were, "They don't like the people who use other drugs" (2-4 percent) and "it's against their personal or religious beliefs" (2-9 percent). Two other choices remained consistently low in frequency of selection: "They don't like the way drugs make them feel or behave" (7-9 percent) and "They have better things to do" (6-7 percent). The first and second most frequently chosen reasons for not using other drugs in 1987 were identical to the findings of the 1978, 1981 and 1984 surveys.

The motives for using other drugs were identified through question 45: "Check what you think are the two most important reasons for people using other drugs such as downers, uppers or hallucinogens." Students could select from seven possible responses. The patterns of student responses are reported in Table 61.

Table 60
Motives for Not Using Other Drugs

	6th Grade	8th Grade	10th Grade	12th Grade	Total
Other drugs are dangerous to their physical or mental health	32	31	29	31	31
They might become addicted to the other drug	22	22	21	22	22
There are too many risks of trouble with the police, employers, or school people	11	12	12	11	11
It's part of dropping out of life and they don't want to do that	17	14	11	9	13
It's against their personal or religious beliefs	2	3	6	9	5
They don't like the way drugs make them feel or behave	7	7	8	9	8
They have better things to do	7	7	6	6	7
They don't like the people who use other drugs	2	3	3	4	3

Regardless of grade level, students most often perceived that "dealing with the stresses and pressures of everyday life" was an important reason for using other drugs (29-32 percent). The second most frequently identified reason for using other drugs was, "Because their friends use the other drugs" (15-21 percent). This response decreased in frequency with each in grade level. The third most frequently selected response was, "They like the way the other drugs make them feel" (14-21 percent). The percentage of students who chose this response increased with each increase in grade level. The two least frequently chosen responses, regardless of grade level, were, "They don't see anything wrong with using other drugs" (8-9 percent) and "Because they don't have anything better to do" (2-3 percent). Approximately 12 percent of the students selected the response, "To feel more important or better about themselves" and an average of 10 percent of the students selected the response, "it's part of trying new things."

Table 62 represents student judgments about two tobacco behaviors. Students' attitudes toward tobacco use apparently became more tolerant with each increase in grade level. Students appeared to be more tolerant of "Smoking after a meal" (13-40 percent) than they were of "Smoking tobacco while riding in another person's car" (7-26 percent). The most pronounced attitude change seemed to be for "smoking tobacco after a meal" since 13 percent of sixth grade and 40 percent of 12th grade students judged the behavior to be good/OK.

Comparisons of tobacco use attitudes in 1984 are also reported in Table 62. Students in 1987 were less accepting of tobacco use, regardless of grade level, than were their grade cohorts in 1984 and 1981.

Table 61
Motives for Using Other Drugs

	6th Grade	8th Grade	10th Grade	12th Grade	Total
To deal with the stresses and pressures of everyday life	32	32	32	29	31
Because their friends use the other drugs	21	20	17	15	18
They like the way the other drugs make them feel	14	16	18	21	17
It's part of trying new things (curiosity, adventure)	7	9	11	13	10
To feel more important or better about themselves	13	13	12	11	12
They don't see anything wrong with using other drugs	9	8	8	8	8
Because they don't have anything else to do	3	2	2	2	2

Table 62
Student Attitudes Toward Specific Tobacco Behavior
(Percent of Grade Level Samples)

			6th Grade	8th Grade	10th Grade	12th Grade	Total
Smoking tobacco after a meal	Good	1987	13	25	37	40	29
	Good	1984	18	28	38	43	32
	Good	1981	20	33	45	48	36
Smoking tobacco while riding in another person's car	Good	1987	7	15	26	26	19
	Good	1984	8	14	21	26	18
	Good	1981	11	20	30	34	23

5. Related Behaviors

Other researchers have identified several behaviors which are associated with the nonuse of substances and several behaviors associated with the use of substances. Questions 86-90 asked students to estimate the number of times in the past month that they employed five types of conforming behaviors (negatively associated with substance use). Questions 92-97 required students to estimate the number of times in the last month that they had engaged in deviant behaviors (positively associated with substance use).

Table 63 represents the percentages of the total 1987 sample reporting conforming behaviors in the past month. Approximately 80-83 percent of the youth in the 1987 survey reported that they engaged in individual or team sports, outdoor activities and worked on a hobby in the past month. "Participation in youth clubs . . ." was the behavior least often (32 percent) reported in the survey. Nearly 62 percent of the 1987 sample reported participating in church activities one or more times in the past month. Participation in church activities was reported by 70 percent of the 1984 sample, 69 percent of the 1981 sample and 57 percent of the 1975 sample.

Participation in extracurricular activities at school was reported by 76 percent of the 1984 sample and 63 percent of the 1981 sample. Overall comparisons of the 1987 and 1984 results indicate decreased participation of 1987 youth sample in four of the five conforming behaviors.

Table 63
Conforming Behaviors Reported
by Total 1987 Sample

How often in the last month . . .	Never	1 or 2 Times	3 to 5 Times	6 or more Times
Play individual or team sports like golf, tennis, or football	20	19	16	44
Do outdoor activities like fishing, hiking, or biking	17	29	23	31
Work on a hobby, collection or art project	20	31	22	26
Participate in church activities like church services, Sunday school, or youth groups	38	20	20	21
Participate in youth clubs like 4-H, scouting or YMCA	68	15	8	8

Data in Table 64 represent responses to question 92-97 concerning deviant behaviors. The percentages were reported for the total 1987 sample with the exception of "driven a car after using alcohol or other drugs." Since more than half of the student sample could not legally drive, only 12th grade data were presented in the table. Table 64 reveals that many youth (79-95 percent) did not engage in five of the six deviant behaviors. The two behaviors which youth least often (5-6 percent) reported having done were theft of property worth more than $15 and the sale or distribution of substances. The most frequently reported deviant behaviors, excluding drinking and driving, were damaging public or private property (18 percent) and giving a teacher a fake excuse for being absent (21 percent).

Overall comparisons of the 1987 and 1984 results indicate an increase in the 1987 sample's participation in five of the six deviant behaviors listed. The remaining deviant behavior (driven after drinking/using) appeared to decrease in 1987.

The data for 12th grade students indicates that driving a car after using alcohol or other drugs is common for that age group. Nearly 38 percent of the 12th grade students reported that they had driven while under the influence of a substance during the past month. The survey did not ask how often students had ridden in a car operated by a driver who had used alcohol or other drugs.

Fewer 12th grade students in 1987 (38 percent) reported having driven after using a substance than did 12th grade students in 1984 (42 percent) and 12th grade students in 1981 (49 percent).

Table 64
Deviant Behaviors Reported by Total 1987 Sample

How often in the last month . . .	Never	1 or 2 Times	3 to 5 Times	6 or more Times
Given a teacher a fake excuse for being absent	79	15	3	2
Taken little things (worth $15 or less) that didn't belong to you	85	11	2	1
Damaged public or private property	82	14	2	1
Driven a car after using alcohol or other drugs (12th Grade sample only)	62	26	7	5
Taken something worth more than $15 that didn't belong to you	94	3	1	1
Sold or distributed marijuana or other drugs	95	2	1	1

6. Summary of Findings for Personal Variables

A number of specific findings regarding motives for using and not using substances, substance knowledge, substance attitudes and associated behaviors were presented as personal variables which affect substance use and nonuse. Several trends or patterns appear in these data.

Functions of Age - Many personal variables appeared to change with age (grade level). Apparently, as Iowa youth become older:

- their attitudes toward substances and substance behaviors "softened." Youth became more tolerant or accepting of substance use.
- their knowledge of substances and substance effects increased.
- they became more aware of peer, parental and media influences on their personal substance use or nonuse.
- they were more likely to recognize their own personal and religious beliefs as a factor in substance use and nonuse.

Functions of Experience and Opportunity - Many personal variables were affected by experience and opportunity. Several pieces of data indicate that youth were more likely to experience substance use, either directly or indirectly, with each increase in grade level. It is very likely that these substance experiences and opportunities became more influential in personal substance use or nonuse decisions.

Function of Information - Most youth recognized the need for information about substances and the consequences of substance use. Data on sources of information indicate the relative credibility youth assign to information received from parents, school, peers and media sources. Evidently, information about tobacco, marijuana and other drugs has influenced student decisions regarding use and nonuse of these substances.

Function of Enculturation - The data suggest that youth are most accepting or tolerant of "socially acceptable" substance use behaviors - alcohol use and instrumental substance use. Evidently, tobacco use and marijuana use have become more "socially unacceptable" to Iowa youth since 1975. Students do learn to recognize what are positively and negatively sanctioned substance behaviors.

Function of Alternatives - The data indicate that very few youth perceive boredom (or "nothing else to do") as an important reason for using substances. Iowa youth were substantially involved in a wide variety of constructive or conforming behaviors. In each year since 1975, more youth have become involved in church and extracurricular activities. Students indicated that the most important reason for using alcohol was to have a good time with people.

Paradoxical Findings - Several inconsistencies were apparent among knowledge, attitudes, motives and reported substance use. The most dangerous of the paradoxes involves drinking and driving. For example, 63 percent of the 12th grade students reported that drinking several alcoholic beverages at a party was a good/OK behavior; 88 percent of the students said that it was bad/not OK to drive after drinking; and 38 percent admitted to having driven after using alcohol or other drugs.

The findings for personal variables portray areas of logical association with substance behaviors.

VI. Summary and Recommendations

The 1987-88 Iowa Study of Alcohol and Drug Attitudes Among Youth was the fifth in a series of tri-annual studies. A primary goal of the study series has been to assess trends in youth substance attitudes, knowledge and behavior. The assessment has provided useful planning data for school persons and other people involved with the health of Iowa youth.

The 1987-88 youth study was specifically designed to answer four research questions:

- What is the present status of substance use, attitudes and knowledge among youth?
- What are some important trends in youth substance use, attitudes and knowledge?
- Which people seem to be the major influences in a youth's decision to use or not use substances?
- What actions do the findings of the 1987-88 study suggest for school persons?

A 101-item survey was developed for the 1987-88 study. The survey instrument was designed to provide some general and specific answers to the research questions. The survey included questions regarding substance use and nonuse, motives for using and not using substances, knowledge of substance information, parent and peer substance models, attitudes toward substances, and other questions related to substance use or nonuse. The survey instrument was designed to be read and answered anonymously by sixth, eighth, 10th and 12th grade students.

A stratified, random sample of 166 public school districts was the basic sampling unit. All school districts could elect to participate or not participate in the youth survey. Twenty-two districts chose to not participate in the survey.

The second and third sampling units were attendance centers within a school district and class enrollments in the sixth, eighth, 10th and 12th grades. The minimum student sample was 18 at each of the four grade levels. Data were collected from 2,066 sixth grade, 2,039 eighth grade, 2,004 tenth grade and 2,234 12th grade students. Students could also choose to not participate in the survey, but very few chose not to do so.

The sampling design, the survey and the procedures for administering the survey were very similar for the 1975, 1978, 1981, 1984 and 1987 studies. These similarities allowed relevant data comparisons among study years.

The 1987-88 youth data were entered on a computer file and treated according to an SAS program format.

The data was reported in various tables according to topics covered in survey questions.

RESEARCH QUESTIONS 1 AND 2: STATUS AND TRENDS

The following outline presents findings relevant to research questions 1 and 2: current status and trends in youth substance behaviors, attitudes and knowledge.

1. **Alcohol Use and Nonuse in 1987**
   - Approximately 95 percent of the 12th grade students had tried alcohol.
   - Most youth (62-74 percent) had tried alcohol by age 14.
   - Nearly 83 percent of sixth grade and 23 percent of 12th grade students reported themselves to be nonusers of alcohol.
   - The largest increase in the number of alcohol users seemed to occur between sixth and eighth grade (23 percent) and eighth and tenth grade (23 percent).
   - The greatest increase (15 percent) in regular use of alcohol seemed to occur between eighth and 10th grade.
   - The largest increase (5 percent) in heavy use of alcohol was observed between 10th and 12th grade.
   - The frequency of alcohol use among male and female students was very similar.
   - Alcohol use in 1987 appeared to be least prevalent in semirural and rural schools and most prevalent in urban schools.
   - A minority of Iowa youth (13-45 percent) did not intend to use alcohol as adults.
   - Students reporting the consumption of three or more drinks per occasion rose from 2 percent of sixth grade to 58 percent of 12th grade samples.

2. **Alcohol Use and Nonuse Trends 1975, 1978, 1981, 1984 and 1987**

   Comparisons of youth data from 1975, 1978, 1981, 1984 and 1987 indicate:
   - A continued downward trend in the number of alcohol users in 1987.
   - Regular and heavy use of alcohol appeared to remain fairly consistent across the five study years.
   - A continued decline in the casual use of alcohol across the four grade levels and the five study years.
   - A decrease in regular and heavy use of alcohol among semirural and rural youth.
   - An increase in the number of male and female students in 1987 who had never used alcohol.

3. **Tobacco Use and Nonuse in 1987**
   - Approximately 46 percent of the youth in the survey had tried tobacco by age 14.
   - Approximately 14 percent of Iowa youth smoked tobacco.
   - The age range 9-12 years appeared to be the period of highest initial tobacco use.
   - The greatest increase in regular and heavy use of tobacco occurred between eighth and 10th grades.
   - Female and male tobacco use patterns were very similar.
   - Heavy tobacco use was observed most frequently among urban students and least frequently among rural students.
   - Approximately 87 percent of the youth in the 1987 survey did not intend to smoke tobacco as adults.

4. **Tobacco Use and Nonuse Trends 1981, 1984 and 1987**
   - There was an overall increase in the use of tobacco among youth in 1987 as compared with 1984.
   - The number of youth who tried tobacco and stopped its use continued to decrease between 1981, 1984 and 1987.
   - Regular and heavy tobacco use continued a three-year decline among semirural and rural youth.

5. **Marijuana Use and Nonuse Trends 1987**
   - A majority of students (60-96 percent) had not tried marijuana.
   - Nearly 40 percent of 12th grade students had tried marijuana.
   - Approximately 13 percent of 10th grade and 17 percent of 12th grade students were current users of marijuana.
   - The greatest increase in the number of casual, regular and heavy users of marijuana seemed to occur between eighth and tenth grades.
   - Casual, regular and heavy marijuana use were more common among urban youth.
   - Female and male students used marijuana at nearly the same frequency.
   - Approximately 92 percent of the students did not intend to use marijuana at age 21.

6. **Marijuana Use and Nonuse Trends 1975, 1978, 1981, 1984 and 1987**
   - Marijuana use was observed to decline between 1975 and 1984 but there appeared to be a slight increase in use among eighth, 10th and 12th grade students in 1987.
   - The largest increase in marijuana use in 1987 seemed to occur in the casual use category among eighth, 10th and 12th grade students.
   - Casual use among urban youth increased in 1987 and heavy use among semiurban youth increased in 1987.

7. **Other Drug Use and Nonuse in 1984**
   - A very small number (2-19 percent) of students had tried other drugs.
   - The age range 13-16 years appeared to be the period of highest initial use of the other drugs.
   - Very few students (5 percent) reported being current users of other drugs.
   - The largest increase in the number of other drug users occurred between eighth and 10th grade.
   - Male and female other drug use patterns were very similar.
   - The data indicate that the larger the school district, the more likely that students would try other drugs and begin their use at at earlier age.

8. **Other Drug Use and Nonuse Trends 1975, 1978, 1981, 1984 and 1987**
   - Fewer 12th grade students had tried other drugs in 1987 (19 percent) and 1984 (19 percent) than had tried them in 1981 (21 percent).
   - The downward trend in other drug use seemed to level off in 1987.

9. **Polysubstance Use and Nonuse in 1987**

Polysubstance use refers to the use of two or more substances within a proscribed period. Computer sorts on the 1987 data resulted in the determination of the number of students who were: nonusers of any substance, users of alcohol only, users of both alcohol and marijuana, users of alcohol and other drugs, users of marijuana and other drugs, and users of all three categories of substances.

   - "Alcohol only" accounted for the largest group of users at each grade level (15-58 percent).
   - Very few students at any grade level were categorized as marijuana users only (0-.4 percent) or other drug users only (0-.2 percent).
   - The most frequently reported substance combinations were "alcohol and marijuana" (.6-11.7 percent) and "use of all substances" (.3-4.9 percent).
   - Males were more frequently "alcohol and marijuana users" and "users of all substances" than were females.
   - Polysubstance use appeared to be more common among urban school districts.

10. Polysubstance Use and Nonuse Trends 1975, 1978, 1981, 1984 and 1987

- The number of nonusers of any substance increased in 1987 as compared to 1984, 1981, 1978 and 1975.
- A decrease in the number of "users of all substances" continued through the 1987 study.
- There were fewer "alcohol only" users in 1987 than there were in 1984.
- The number of "alcohol and marijuana" users increased in eighth, 10th and 12th grade in 1987 as compared with 1984.
- The number of "alcohol only" users decreased in sixth, eighth, 10th and 12th grade in 1987 as compared with 1984.
- In 1987 there was a .4-10 percent increase over 1981 in the number of "nonusers of any substance" in each of the four size categories of schools. The percent increases were: 4 percent (urban), 8 percent (semiurban), 10 percent (semirural) and 10 percent (rural).

11. Student Attitudes Toward Substances and Substance Behaviors

A general observation from these data is that student attitudes toward substances and substance behaviors became more tolerant with each increase in grade levels. The major findings regarding student substance attitudes in 1987 are listed below:

- As grade level increased, fewer students (67-52 percent) agreed with the statement, "it is hard for a teen to say no wnen offered alcohol or marijuana".
- Student attitudes varied toward different types of use behavior. Students reported the most favorable attitudes toward instrumental use and alcohol use and the least favorable attitudes toward tobacco use and marijuana use.
- Large percentages of students (88-95 percent) considered drinking and driving to be bad/wrong behaviors.
- Drinking several alcoholic beverages at a party was approved behavior among 9 percent of the sixth grade and 63 percent of the 12th grade students.
- Approximately 31 percent of the sixth grade and 63 percent of the 12th grade students approved of drinking two to three alcoholic beverages after work.
- Approximately 22 percent of the sixth grade and 14 percent of the 12th grade students agreed that there is nothing wrong with drinking beer or wine.
- There was a marked decline in pro-marijuana attitudes in 1987 as compared to other study years.
- Approximately 8 percent of sixth grade and 35 percent of 12th grade students agreed that there is no harm in taking marijuana once or twice to find out what it is like.
- A minority (4-16 percent) of students judged smoking marijuana at a party and using marijuana to relax to be good/OK behaviors.
- Nearly 13 percent of sixth grade and 40 percent of 12th grade students considered smoking tobacco after a meal to be a good/OK behavior.

12. Substance Knowledge Among Students

Ten questions were included in the survey to assess student knowledge about substances. Students were more likely to answer questions correctly with each increase in grade level.

- Students most frequently knew the correct answers to questions concerning smoking and pregnancy, tolerance for a substance, intoxication level for drunk driving and drinking and driving.
- Students were least often correct in answering questions concerning physical dependency, immediate risks of substances, and heart and blood pressure risks of cocaine.

RESEARCH QUESTION 3: INFLUENCES ON YOUTH SUBSTANCE DECISIONS

Many survey questions were designed to assess the influence exerted by external sources, including parents, schools, peers and others. Another set of questions attempted to assess internal sources of influence (personal variables). The major findings concerning external and internal sources of influence are reported below.

1. External Sources of Influence

Parents consistently ranked first as influences to not use alcohol, tobacco, marijuana and other drugs. Parents were most frequently cited as the primary source of substance information. Parents ranked second (in terms of frequency of selection) to peers as a source of help for a substance problem.

Peers ranked second as an influence to not use substances. Peers ranked third as a source of information and first as a source of help.

School Persons (teachers, nurse and counselor) ranked third as an influence to not use substances, second as a source of substance information and seventh as a source of help.

Siblings ranked fourth as an influence to not use substances, seventh as a source of information and fifth as a source of help.

Specific findings for external sources of influence are as follows:

- Approximately 38 percent of alcohol users, 32 percent of tobacco users and 66 percent of marijuana users reported that their parents did not know about these behaviors.
- Nearly 50 percent of alcohol users, 61 percent of tobacco users, and 22 percent of marijuana users reported that their parents knew about these behaviors.
- Students reported that 57 percent of their mothers and 37 percent of their fathers never smoked tobacco. This compares with 61 percent of the 12th grade students who reported never using tobacco. Students also reported that 12 percent of their mothers and 21 percent of their fathers had stopped smoking. Sixteen percent of 12th grade students reported having stopped smoking.
- Students reported that nearly 29 percent of their mothers and 15 percent of their fathers never drank. Moderate drinking (occasionally/a few drinks each week) was reported for 58 percent of the mothers and 58 percent of the fathers. Nearly 62 percent of the 12th grade students reported being moderate/frequent drinkers.
- Personal contact with peers who used alcohol, marijuana and tobacco became more and more likely with each increase in grade level.
- Approximately 42 percent of 12th grade and 35 percent of 10th grade students reported that their friends would approve of them getting drunk once or twice every week.
- Nearly 22 percent of the 12th grade and 17 percent of the 10th grade students said that their friends would approve of them smoking marijuana.
- Student data indicate that most schools have provided information about substances.
- Apparently, school programs have influenced many (29-44 percent) students to not use substances and reinforced the 29-45 percent of students who had previously decided to not use substances. School programs appeared to exert the most positive influence on the nonuse of marijuana and other drugs. Such programs also appeared to exert a positive influence on tobacco nonuse decisions. A small percentage of students (2-4 percent) reported that school programs had influenced them to stop using substances. School programs seemed to have had the least positive influence on student nonuse of alcohol.

2. Internal Sources of Influence (Personal Variables)

Internal sources of influence on substance use and nonuse behavior included attitudes about substances and substance behaviors, perceived motives for using/not using substances, conforming/nonconforming behaviors, and decision-making styles. Findings regarding motives, decision making and related behaviors were not reported earlier in this summary. Relevant findings for these variables are listed below.

Motives for Not Using

- Students most frequently selected, ". . . is dangerous to their physical or mental health" as an important reason for not using alcohol (20 percent of total sample), marijuana (36 percent of total sample), and other drugs (31 percent of total sample).
- One reason for not using substances increased in frequency of selection with each increase in grade level, ". . . is against their personal or religious beliefs."
- The most frequently chosen reason for not using alcohol was "They might get into an accident and hurt someone."

Motives for Using

- Students most frequently selected, "Because their (families) friends use . . ." as an important reason for using alcohol (13 percent of total sample), marijuana (21 percent of total sample) and other drugs (18 percent of total sample).
- The response, "They like the way . . . makes them feel," was frequently selected as a reason for using alcohol (16 percent of the total sample), marijuana (20 percent of total sample) and other drugs (17 percent of total sample).
- Two responses, "They like the way . . . makes them feel" and "To have a good time with people," increased in frequency of selection with each increase in grade level.
- "Because they don't have anything else to do," was very seldom selected as an important reason for using alcohol, marijuana or other drugs.
- The two most frequently reported reasons for using alcohol were, "To forget about their problems or unhappiness" and "To have a good time with people."
- The two most frequently reported reasons for using marijuana were, "Because their friends use marijuana" and "They like the way marijuana makes them feel."
- Students most often perceived, regardless of grade level, that "Dealing with the stresses and pressures of everyday life" was an important reason for using other drugs.

Decision Making in Substance Situations

- Two questions presented situations in which peers were attempting to persuade a youth to use alcohol. There were eight possible responses for each question from which students could select only one. In both situations, with each increase in grade level, more students reported that they would acquiesce to peer influence to drink. For example, 8 percent of the sixth grade students reported that they would drink a can of beer offered by a friend while 54 percent of 12th grade students selected this response. In the second situation, 15 percent of the sixth grade and 67 percent of the 12th grade students reported that they would concur with their friends' plans and drink.
- One question described a situation which involved peer influence to use marijuana. Almost 4 percent of sixth grade and 15 percent of 12th grade students indicated that they would yield to peer influence and use marijuana.
- Comparisons of 1987 and 1984 youth responses indicate that more youth in 1987 would not yield to peer influence to use the alcohol and marijuana.

Related Behaviors

- Approximately 80-83 percent of the youth in the 1987 survey reported that they engaged in individual or team sports, outdoor activities or worked on a hobby one or more times in the past month.
- Nearly 62 percent of the total sample reported participating in church activities one or more times in the past month.
- Most students (79-95 percent) did not participate during the previous month in five of six deviant behaviors listed. The most frequently mentioned deviant behaviors, with the exception of driving while under the influence, were damage to public or private property (18 percent) and giving a teacher a fake excuse for being absent (21 percent).
- The data for 12th grade students reveals that 38 percent of them had driven a car after using alcohol or other drugs on one or more occasions in the past month. The comparable statistics for 1984 were 42 percent and for 1981 were 46 percent of the 12th grade sample.

RESEARCH QUESTION 4: RECOMMENDED ACTIONS FOR SCHOOL PERSONS AND OTHERS

The 1987-88 Iowa Study of Alcohol and Drug Attitudes and Behaviors Among Youth provided a very broad perspective on substance use in Iowa. Much information from the five study years of 1975, 1978, 1981, 1984 and 1987 has been condensed in this report.

Five major themes were consistently repeated in the survey:

- Youth decided to use or not use substances.
- Peers, parents, school persons and media exert their influence on a youth's decisions to use or not use substances.
- Many factors within the individual (e.g., values, personal or religious beliefs, substance attitudes, self-esteem) strongly influence his/her substance use or nonuse behaviors.
- Adolescence is a very healthy life stage through which most Iowa youth pass successfully.
- All adolescents are not basically alike. It is damaging and misleading to generalize to all youth the behaviors, problems and characteristics exhibited by a few.

The five themes and the data from the survey logically lead to some specific recommendations for school persons, families and persons who serve youth. Some specific actions can be taken to respond to student substance use. Less obvious, however, are community values, attitudes and behaviors that influence students' decisions regarding substance use and nonuse. Community responses to student substance use must consider the phenomena of modeling, imitation, identification, socialization and community sanctions. Youth receive some very diverse messages from their parents, peers, school persons, churches, community leaders and the media regarding substances and substance behaviors.

Recommendations regarding these social influences and community responses are necessarily limited to actions supported by the data in the five youth surveys.

1. Recommendations for School Persons

Curriculum and Instruction - Students and parents expect schools to be a primary source of information about substances and substance behaviors. School persons must recognize the appropriateness and credibility of the information they present to students. Such information and the way in which it is presented should match the developmental concerns and interests of students. Classroom instruction should help students reduce the ambivalence and/or confusion between their substance attitudes, motives, knowledge and actual substance behaviors. Classroom instruction should help students develop the skills to both abstain from substance use and carry through responsible substance decisions personally and socially. Specifically, school persons should:

- Reassess the time and emphasis given to specific substances and substance behaviors. For example, students indicated that more instructional time is given to "other drugs" and marijuana and less time is given to alcohol, tobacco and medicines.

- Evaluate the major concepts which should be learned through the substance education program. Particularly important are the concepts of substance interactions, physiological predispositions for dependency, substance dependency, prevention of substance abuse, non-substance alternative behaviors and responsible use of medicines and over-the-counter drugs.
- Reconsider the two concepts of dysfunctional families and enabling substance use in relationship to substance abuse and dependency. Many Iowa students, approximately 15 percent of any class, are living in a family where one or both parents are alcohol-dependent. Other students are living with older siblings who are substance abusers or substance-dependent. Sensitive instruction can help these students to more constructively cope with their dysfunctional family situations.
- Recognize in curriculum and instructions the developmental shift from student concerns at the elementary level (i.e., health facts and personal safety) to their concerns at the secondary level (i.e., personal lifestyle and the social and psychological consequences of substance use and nonuse).
- Curriculum and instruction should emphasize the decision-making process as applied to substance behaviors.
- Any health education curriculum adopted by a school district should give a major instructional emphasis to substance abuse prevention.

School Interventions - Students and their families look to schools as a source of help for problems related to substance use. Early identification and early interventions are plausible roles for school persons, especially in the following circumstances:

- Students who have become dependent upon substances.
- Students who are regular or heavy users of substances.
- Students seeking help for a friend or sibling.
- Students experiencing personal and/or school problems related to their parents' substance use.
- Students who wish to return to school after completing a substance abuse treatment program.

School persons should reconsider their roles, policies and procedures for getting or giving help to students in each of these circumstances. Many Iowa youth, however, indicate that they consider school personnel to be a "threat" (i.e., judgmental attitudes and punitive approaches) to obtaining such help. Six specific actions are suggested by this information and youth data:

- Review school policies and procedures in respect to the circumstances listed above. The policy review should also consider procedures for helping school staff who are experiencing substance abuse problems. District policy should be based on the philosophy of assisting people to receive help for a health problem.
- Reassess working relationships with substance abuse and other community helping services. It may be necessary for schools to act as a catalyst to develop needed services for youth, their families and school staff.
- Establish two forms of additional training for school personnel: 1) a general staff training to recognize substance problems and how to initiate helpful communications with students regarding these problems and 2) a focused training for selected school personnel so that they can function as an intervention team.
- Publicly recognize the reality of student substance use. A periodic youth assessment will indicate the extent of substance use and help set directions for the school's response to student substance use.
- Consider implementing a "peer helper" program at the secondary level. The data clearly indicate that youth will turn to their peers for substance information and help. The data also indicate that many youth would respond to peer support. Peer helping programs have functioned effectively as both a prevention and intervention approach.
- Establish a support group or network for children from substance dependent families. Such support groups are the earliest interventions with a very high-risk group. School persons can take an active role in establishing support groups in the community or at school.

2. Recommendations for Parents and Familes

Many parents and families can be reassured that they are "doing some things right." Youth perceive parents to exert many positive influences on their substance behaviors. Most youth view their parents as a source of help for substance problems. A majority of youth reported positive communications and support from their parents. All parents and families should be encouraged not to forfeit these positive relationships and influence when their children enter the teen years. Some specific recommendations are apparent:

- Children and youth strongly identify with the substance behaviors of their parents and siblings. Family members must be willing to examine their own substance use behaviors and change those which they don't wish youth to adopt.
- Families should find the time to discuss guidelines or family rules regarding the use or nonuse of alcohol, tobacco, medicines, over-the-counter drugs and other substances. Considerable confusion exists between youths and their families regarding acceptable and unacceptable substance behaviors.

- Many communities allow families of substance-dependent youth to remain isolated. Such families can offer encouragement and support to one another as they try to cope with the problems associated with substance dependency/abuse among their children. Family support groups are very important in the whole continuum from identifying and confronting substance abuse/dependency through treatment and after care.
- Families can work together to plan and carry out nonsubstance activities. For example, Project Graduation demonstrates concretely that people can have a great time together without using substances.
- Parents should be encouraged to get to know their children's friends and their friend's parents. Such communication networks will help to dispel the notion that "everyone else is doing it" or that other families condone youth substance use.
- Substance education begins very early through the broadcast media and films. Family members need to be well-enough informed to effectively counteract the negative media messages their children receive. For example, most media messages regarding alcohol and over-the-counter substances repeat the theme "you have a right to feel good" and "our product will make you feel good or feel better about yourself."

3. Recommendations for Agencies Serving Youth

Approximately 8 percent of Iowa youth indicated that they would turn to a crisis line or substance abuse treatment center if they had a personal problem related to substance use.

Evidently, several factors are operative in interventions with Iowa youth: 1) a stigma (denial and embarrassment) associated with seeking professional help for oneself or one's child, 2) a shortage of local services for adolescent clients, 3) a reluctance on the part of school persons to refer students for substance abuse assessments, 4) an ineffective outreach effort by some local agencies, and 5) poor referral and follow-up arrangements between schools and local agencies. Helping agencies should assess each of the factors mentioned in relationship to the services they actually offer to youth and their families.

Community agencies and schools have developed some effective systems for identifying students experiencing problems and for providing the necessary help and follow-up. Most notable among the models is the student assistance program.

Community agencies and schools can also work together to establish support groups for children of chemically dependent familes and support groups for "recovering youth" (aftercare groups).

Other community groups (e.g., 4-H, scouts, FFA, church youth groups) can offer youth some involvement and investment in nonsubstance alternatives. Such alternative behaviors should help youth meet some very important needs (e.g., sense of belonging, care-giving, achievement and fun and adventure) without resorting to substance use. Youth should be involved in developing and implementing the alternative activities or programs.

Agencies serving youth can work within communities to help modify community substance use norms and pro-use attitudes. Such agencies can begin to identify and change norms and actions that promote substance use and abuse, substituting norms and actions that promote healthy lifestyles.